

Service Manual

ViewSonic VG500b-1

Model No. VLCDS24349-1

15" Color TFT LCD Display

(VG500b-1_SM_574 Rev. 1c Feb. 2004)

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Revision History

Revision	Date	Description Of Changes	Approval
1a	10/01/02	Initial Release DCN-2350	K.Yang
1b	10/31/02	Revise DCN-2350	C.Shen
1c	02/10/04	Change Scaler to MRT MV2 DCN-4213	Angela Luh

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1. Precautions and Safety Notices

This monitor is manufactured and tested on a ground principle that a user's safety comes first. However, improper use or installation may cause damage to the monitor as well as to the user.

WARNINGS

- This monitor should be operated only at the correct power sources indicated on the label on the rear of the monitor. If you're unsure of the power supply in your residence, consult your local dealer or Power Company.
- Use only the special power adapter that comes with this monitor for power input.
- Do not try to repair the monitor by yourself, as it contains no user-serviceable parts. This monitor should only be repaired by a qualified technician.
- Do not remove the monitor cabinet. There are high-voltage parts inside that may cause electric shock to human bodies.
- Stop using the monitor if the clean is damaged. Have it checked by a service technician.
- Put your monitor only in a clean, cool, dry environment. If it gets wet, unplug the power cable immediately and consult your local dealer.
- Always unplug the monitor local cleaning it. Clean the cabinet with a soft, dry cloth. Apply non-ammonia based cleaner onto the cloth, not directly onto the glass screen.
- Do not place heavy objects on the monitor or power cord.

PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in this chassis have special safety visual inspections and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Before replacing any of these components read the parts list in this manual carefully. The use of substitute replacement parts, which do not have the same safety characteristics as specified in the parts list, may create shock, fire, or other hazards.

SERVICE NOTES

- When replacing parts or circuit boards, clamp the lead wires around terminals before soldering.
- Keep wires away from high voltage, high temperature components and sharp edges.
- Keep wires in their original position so as to reduce interference.
- Adjustment of this product please refer to the user' manual.

SERVICE TOOLS & EQUIPMENT REQUIRED

- SIGNAL GENERATOR: Chroma 2237 or equivalent
- MULTIMETER Fluke 45 or equivalent
- SCREW DRIVER
- OSCILLOSCOPE Tektronik TDS3054 digital oscilloscope or equivalent
- SOLDER IRON

2. Specification

2.1 PRODUCT SPECIFICATIONS

LCD Panel	15.0" TFT
Power Management	Energy Star compliant VESA DPMS compatible <2W
Displayable Resolution	XGA, 1024x768 (max.)
Pixel Dimension	0.297(H) x 0.297(V) mm
LCD Display Color	16.7M color (max.)
Viewing Angle	CR $\geq$ 10 Horizontal: -60°~+60° Vertical: -55°~+45°
Tilt	-10°~-5°
Contrast Ratio	400:1 typical 250:1 minimum
Brightness	200cd/m ² (min) 250cd/m ² (typ.)
Response Time	Tr: 7ms, Tf: 23ms
Active Display Area	304.1mm(H) x 228.1mm(V)
Temperature	Operating: 0°C~+40°C (240h) Storage: -20°C~+60°C (240h)
Compliance	UL, CSA, FCC, CE, CB, BSMI, Energy Star, TUV, Semko, Nemko, Fimko, Demko, DHHS, MPRII, TCO95, GOST-R, C-Tick, VCCI, CCC
Power	Input Voltage: 100~240 Vac Consumption: 35Watts (Max.)

2.2 SUPPORTED MODES

Primary Preset:	VESA 1024 x 768 @ 60Hz
Factory Preset Modes:	1. VGA 640x350 @ 70Hz, 25.176MHz 2. VESA 640x480 @ 60Hz, 25.175MHz 3. MAC 640x480 @ 67Hz, 31.500MHz 4. VESA 640x480 @ 72Hz, 31.50MHz 5. VESA 640x480 @ 75Hz, 31.50MHz 6. VESA 720x400 @ 70Hz, 28.320MHz 7. VESA 800x600 @ 56Hz, 36.00MHz 8. VESA 800x600 @ 60Hz, 40.00MHz 9. VESA 800x600 @ 72Hz, 50.00MHz 10. VESA 800x600 @ 75Hz, 49.5MHz 11. MAC 832x624 @ 75Hz, 57.272MHz 12. VESA 1024x768 @ 60Hz, 65MHz 13. VESA 1024x768 @ 70Hz, 75.000MHz 14. VESA 1024x768 @ 72Hz, 78.000MHz 15. MAC 1024x768 @ 75Hz, 80.000MHz 16. VESA 1024x768 @ 75Hz, 78.750MHz

3. Front Panel Function Control Description

Panel adjustment

- 3-1 Select 1024 x 768@60Hz mode, and Crosshatch pattern
- 3-2 Press “ Auto image set up” -----Direct access “2” Key
- 3-3 Brightness set at maximum
- 3-4 Switch pattern to full screen “pixel on/off” pattern with R, B color off and Green on.
Green color level set at level 255.
- 3-5 Adjust VR01 until whole screen display stable and flicker free.

Function Test and Alignment Procedure

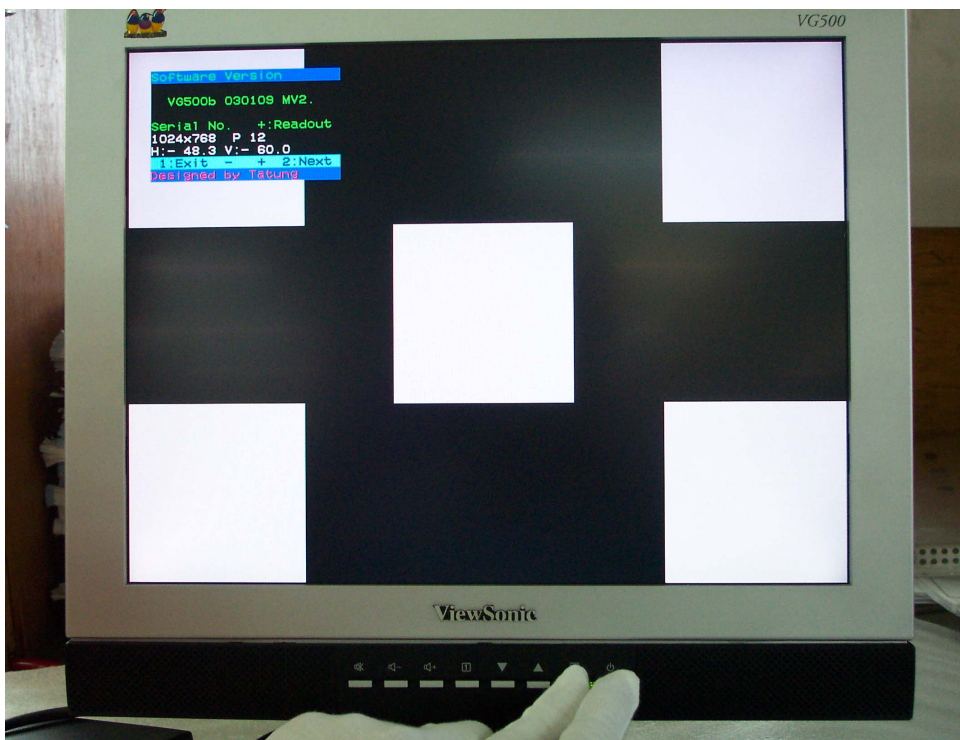
15” LCD MONITOR MODEL: **VG500b**

Test Equipment

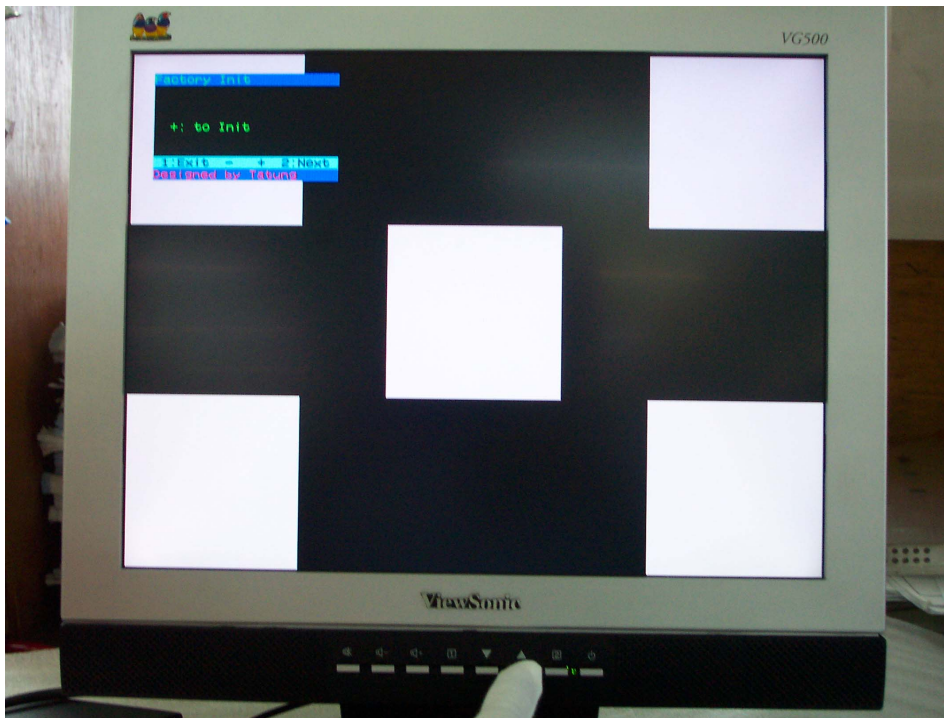
Color Video Signal & Pattern (XGA 1024 x 768 @ 60 Hz 5 white block Pattern)

Hot Key

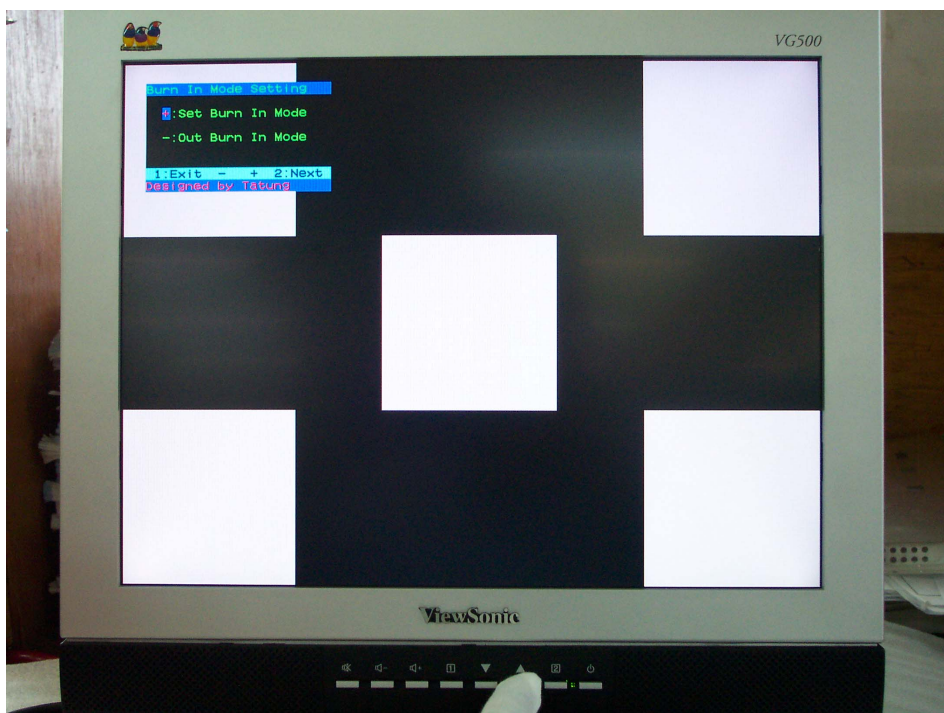
- ssAll Mode Reset
Press “ **2** ” and “ power “ buttons simultaneously and “Power on
“ with signal hold on for 3 seconds. Then the left OSD screen will
show “Software Version “



- Press “ **2** ” button , the OSD will find “ Factory Init. ”
Then “ **▲** ” button for 3 seconds , the OSD show “ Memory Recall “ to
initial All Mode.



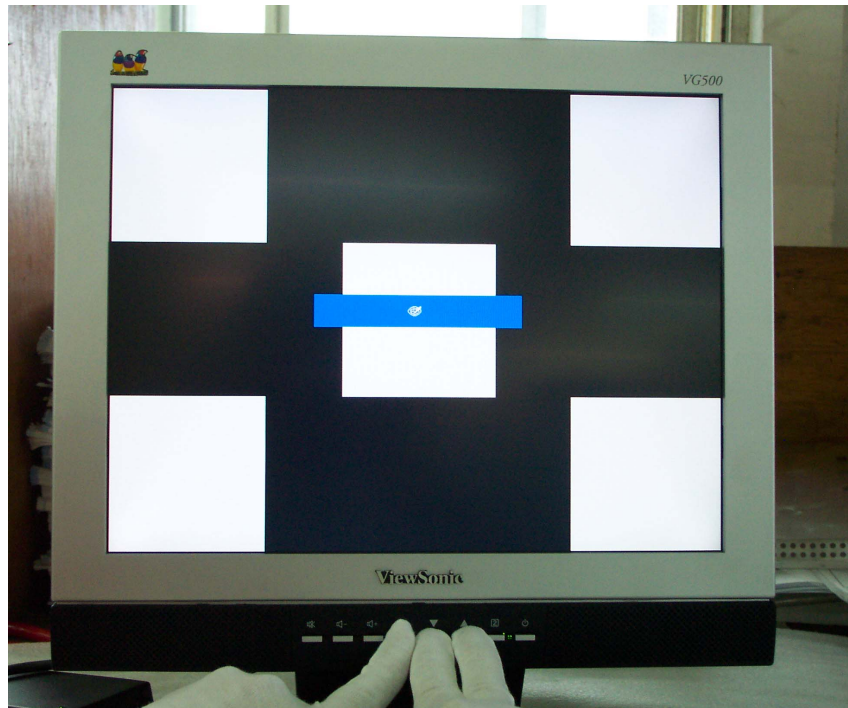
- Burn In Mode
Press “ **2** ” button , the OSD will show “Burn In Mode Setting ”
Then set “ **▲** ” or “ **▼** ” buttons , you can find “ set Burn In Mode ”
Information about this monitor



- White Balance

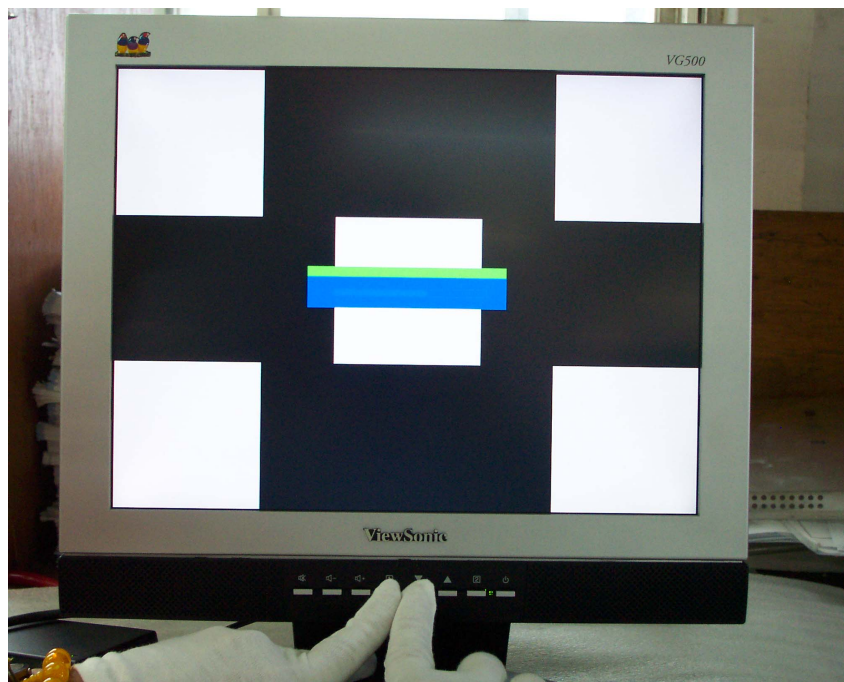
Press “▲” “▼” and “1” buttons simultaneously for 3 seconds to set White Balance Mode.

Please set the screen on 1024x768 @ 60 Hz resolution 5 white block pattern



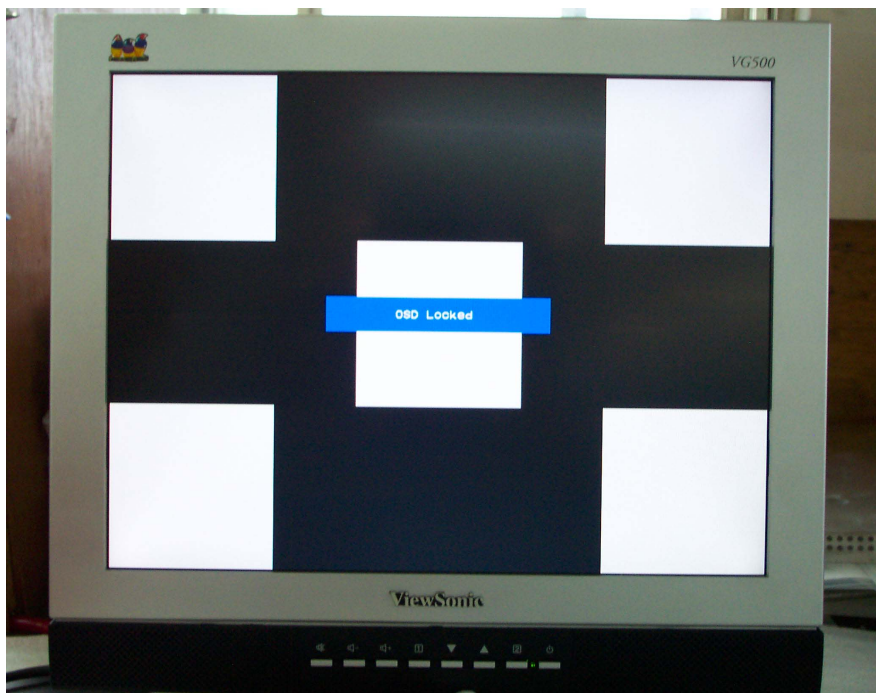
- Power Lock

Press “▼” and “1” buttons simultaneously for 10 seconds, and the Power will be locked. Repeat the action, and the power will be unlocked.



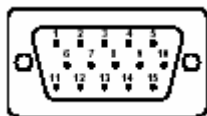
- OSD Lock

Press “▲” “1” buttons simultaneously for 10 seconds, and the OSD will be locked. Repeat the action and the OSD will be unlocked.



4. Circuit Description

4.1D-SUB CONNECTOR PINASSIGNMENT



Pin No.	Symbol	Signal	Description
1	R	RED	0.7vp-p (VIDEO)
2	G	GREEN	0.7vp-p (VIDEO)
3	B	BLUE	0.7vp-p (VIDEO)
4	N.C.		
5	GND	GROUND	
6	GND	GROUND	
7	GND	GROUND	
8	GND	GROUND	
9	VCC_+5V	PC +5V	
10	GND	GROUND	
11	N.C.		
12	DDC_SDA	DDC1/2B	TTL
13	DDC_SCL	DDC1/2B	TTL
14	VGA_VSYNC	VSYNC	TTL positive or negative
15	VGA_HSYNC	HSYNC	TTL positive or negative

4.2 Main DC+12V Input (J800 on I/F Board)

Pin No.	Symbol	Function
1	GND	Ground
2	DC+12V	Main DC+12V Input
3	GND	Ground

4.3 Audio Input Jack (J701 on I/F Board)

Pin No.	Symbol	Function
1		Ground
2		L_CH_Audio Input
3		R_CH_Audio Input
4		L_CH_Audio Return
5		R_CH_Audio Return

4.4 INTERNAL CONNECTOR & PIN ASSIGNMENT

XGA Interface Board (PWB-0535)

CON1 : Connect with Control board

Pin No.	Symbol	Function
1	Mute	OSD, Audio Mute Function Button
2	SP-	Adjust audio volume smaller
3	SP+	Adjust audio volume louder
4	Menu	Call out or close the OSD menu or come back to the previous menu
5	Down	Choose the next one item or value
6	Up	Choose the last one item or value
7	Sel	Select
8	GND	Ground
9	Amber	Indicate the system in power saving mode
10	Green	Indicate the system in active mode
11	GND	Ground
12	Power	Power on/off control port

CON3 : Connect to the PWB-0537, which is power/audio board

Pin No.	Symbol	Function
1	SENSOR	Detect audio I/P signal
2	GND	Ground
3	+12V	DC+12V
4	GND	Ground
5	CCFL_EN	Backlight lamps ON(high)/Off(Low) control
6	GPIO2/PWM2	Brightness adjustments (Low Max./ Hi. Min.)
7	MUTE+	Audio Mute control (High means SPK off, Low means On)
8	GND	Ground
9	+5V	DC+5V
10	+5V	DC+5V
11	STDBY	Audio Stand-by control (Hi means stand-by, Low means Normal)
12	VOLUME	Speaker volume control (0V means Sound off, 1.2V means MAX.)

CON5 : Output to panel

Pin No.	Symbol	Function
1	GND	Ground
2	GND	Ground
3	CLKH-	Sampling Clock for line pixels
4	GND	Ground
5	GND	Ground
6	OB7	Blue data signal of odd pixel
7	OB6	Blue data signal of odd pixel
8	OB5	Blue data signal of odd pixel
9	OB4	Blue data signal of odd pixel
10	OB3	Blue data signal of odd pixel
11	OB2	Blue data signal of odd pixel
12	OB1	Blue data signal of odd pixel
13	OB0	Blue data signal of odd pixel
14	GND	Ground
15	OG7	Green data signal of odd pixel
16	OG6	Green data signal of odd pixel
17	OG5	Green data signal of odd pixel
18	OG4	Green data signal of odd pixel
19	OG3	Green data signal of odd pixel
20	OG2	Green data signal of odd pixel
21	OG1	Green data signal of odd pixel
22	OG0	Green data signal of odd pixel
23	GND	Grounding
24	OR7	Red data signal of odd pixel
25	OR6	Red data signal of odd pixel
26	OR5	Red data signal of odd pixel
27	OR4	Red data signal of odd pixel
28	OR3	Red data signal of odd pixel
29	OR2	Red data signal of odd pixel
30	OR1	Red data signal of odd pixel
31	OR0	Red data signal of odd pixel
32	GND	Ground
33	GND	Ground
34	VDDA	DC+9V for panel D/A reference voltage to make gray scale smooth

35	VDDA	DC+9V for panel D/A reference voltage to make gray scale smooth
36	VDDA	DC+9V for panel D/A reference voltage to make gray scale smooth
37	VDDA	DC+9V for panel D/A reference voltage to make gray scale smooth
38	VDDA	DC+9V for panel D/A reference voltage to make gray scale smooth
Pin No.	Symbol	Function
39	VDDA	DC+9V for panel D/A reference voltage to make gray scale smooth
40	GND	Ground
41	GND	Ground
42	GND	Ground
43	GND	Ground
44	EPOL	O/E reference voltage selection
45	HMS2_E	Even pixel inverter for power saving and reducing EMI
46	HMS1_O	Odd pixel inverter for power saving and reducing EMI
47	DHS_LP	Latch pulse for per line
48	STH1	Trigger the first pixel per line
49	GND	Ground
50	GND	Ground

CON6 : Output to panel

Pin No.	Symbol	Function
1	GND	Ground
2	GND	Ground
3	VEEG	DC-6V for frame dark
4	VEEG	DC-6V for frame dark
5	VDDG	DC+18V for frame white
6	VDDG	DC+18V for frame white
7	CLKV	Sampling Clock for frame line
8	STV1	Trigger the first line per frame
9	VDDD	DC_3.3V for panel VCC
10	VDDD	DC_3.3V for panel VCC
11	VDDD	DC_3.3V for panel VCC
12	VDDD	DC_3.3V for panel VCC
13	VDDD	DC_3.3V for panel VCC
14	VDDD	DC_3.3V for panel VCC
15	VCOM	Panel flicker adjustment, Adjustable voltage from DC3.3V ~4V
16	VCOM	Panel flicker adjustment, Adjustable voltage from DC3.3V ~4V
17	VCOM	Panel flicker adjustment, Adjustable voltage from DC3.3V ~4V
18	VCOM	Panel flicker adjustment, Adjustable voltage from DC3.3V ~4V
19	VCOM	Panel flicker adjustment, Adjustable voltage from DC3.3V ~4V

20	VCOM	Panel flicker adjustment, Adjustable voltage from DC3.3V ~4V
21	GND	Ground
22	GND	Ground
23	EB7	Blue data signal of even pixel
24	EB6	Blue data signal of even pixel
25	EB5	Blue data signal of even pixel
26	EB4	Blue data signal of even pixel
Pin No.	Symbol	Function
27	EB3	Blue data signal of even pixel
28	EB2	Blue data signal of even pixel
29	EB1	Blue data signal of even pixel
30	EB0	Blue data signal of even pixel
31	GND	Ground
32	EG7	Green data signal of even pixel
33	EG6	Green data signal of even pixel
34	EG5	Green data signal of even pixel
35	EG4	Green data signal of even pixel
36	EG3	Green data signal of even pixel
37	EG2	Green data signal of even pixel
38	EG1	Green data signal of even pixel
39	EG0	Green data signal of even pixel
40	GND	Ground
41	ER7	Red data signal of even pixel
42	ER6	Red data signal of even pixel
43	ER5	Red data signal of even pixel
44	ER4	Red data signal of even pixel
45	ER3	Red data signal of even pixel
46	ER2	Red data signal of even pixel
47	ER1	Red data signal of even pixel
48	ER0	Red data signal of even pixel
49	GND	Ground
50	GND	Ground

POWER/AUDIO Board (PWB-0537)

JP2 : Connect to the I/F Board

Pin No.	Symbol	Function
1	Volume	Speaker volume control (0V sound off, 1.2V sound Max.)
2	Stdbby	Audio standby control (High standby, Low normal)
3	DC+5V	DC+5V

4	DC+5V	DC+5V
5	GND	Ground
7	BRT	Brightness adjustment (Low is max., High is Min.)
8	CCFL_EN	Backlight lamps enable (ON/high, OFF/low)
9	GND	Ground
10	DC+12V	DC+12V
11	GND	Ground
12	SENSOR	Detect audio I/P signal

P1 : Connect to inverter

Pin No.	Symbol	Function
1	DC+12V	DC+12V
2	GND	Ground
3	BRT	Brightness adjustment (Low is Max., High is Min.)
4	DC+5V	DC+5V
5	CCFL_EN	Backlight lamps enable (ON/high, OFF/low)

CN701 : Connect to control board, control the audio

Pin No.	Symbol	Function
1	L-	L_CH_SP_-Signal
2	L+	L_CH_SP_+Signal
3	GND_S1	Ground
4	R+	R_CH_SP_-Signal
5	R-	R_CH_SP_+Signal

DDC Recorder User Manual

- **Connect the recorder (with Keyport II)to the printer port on your PC.**
- **Insert on the diskette into your PC's floppy drivers, then turn on the PC power.**
- **A setup main menu will be appear as below :**

Select DDC Function Mode

[1]	Auto Replace DDC Date Bar Code : xttddsssss [F5] : Check DDC1 [F6] : Check DDC2
[2]	
[3]	
[4]	
[5]	
[6]	
[7]	Mode Name : L5CNSE29.HWP
[8]	Serial NO : sssss
[9]	DDC Year : 2003
[A]	DDC Weeks : 01

Recoding Process :

- Choose a correct mode name
- Press [Caps Lock] then key in the bar code number STHTAA00001, And then Press [Enter].
The screen shows a green color sentence "Receive DDC Data OK"
- Be sure both the bar code number and DDC2 data are correct.
- After set power off --on, press[F5] to make sure the DDC1 and bar code number are correct.

Checking Process :

- After SET ON ,Press [F5] then verify DDC1 data .Press[F6] to verify DDC2 data .During checking
- process ,either DDC1 or DDC2 should appear a green color sentence "Receive DDC Data OK", and which will be disappeared after 10 second
- The following is an example of DDC data :

DDC Data Received : STHTAA00001

*DDC	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0000	00	FF	FF	FF	FF	FF	FF	00	5A	63	0A	B4	01	01	01	01
0010	1A	0C	01	03	08	1E	17	78	2A	9D	9E	99	58	4C	93	26
0020	21	4C	54	BF	EE	00	61	40	01	01	01	01	01	01	01	01
0030	01	01	01	01	01	01	64	19	00	40	41	00	26	30	18	88
0040	36	00	30	E4	10	00	00	18	00	00	00	FF	00	31	31	50
0050	30	32	32	36	30	30	30	37	39	0A	00	00	00	FD	00	32
0060	4B	1E	3E	08	00	0A	20	20	20	20	20	20	00	00	00	FC
0070	00	56	47	35	30	30	62	0A	20	20	20	20	20	20	00	43

5. Adjusting Procedure

5-1 Disassembly of Rear Cover

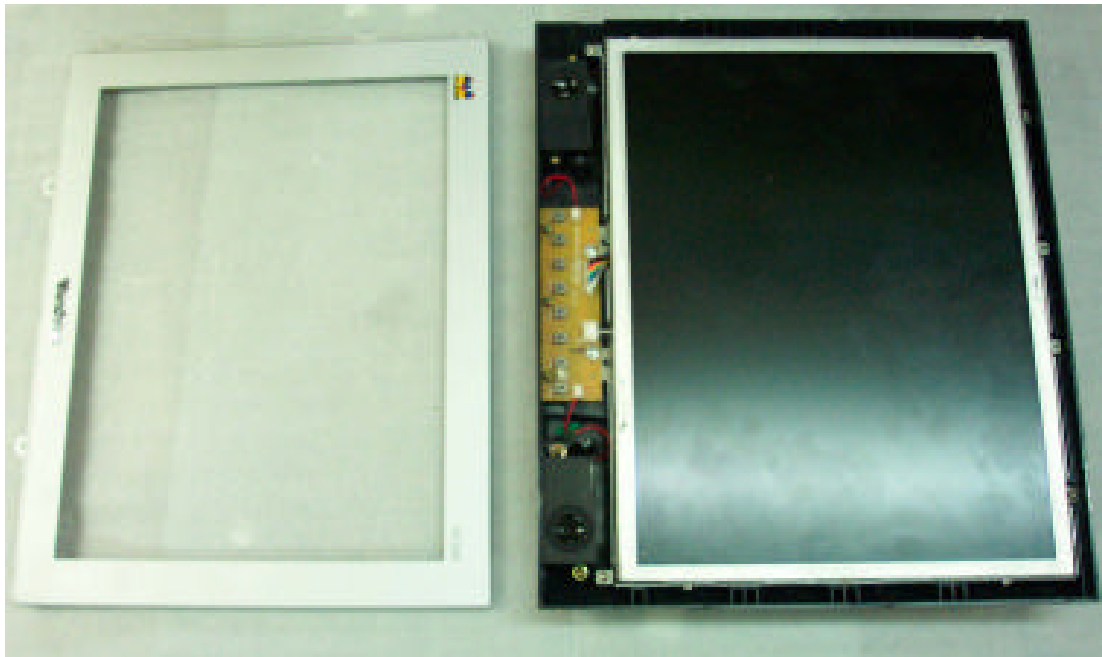
- Unscrew nine screws of Base Plate and Remove monitor



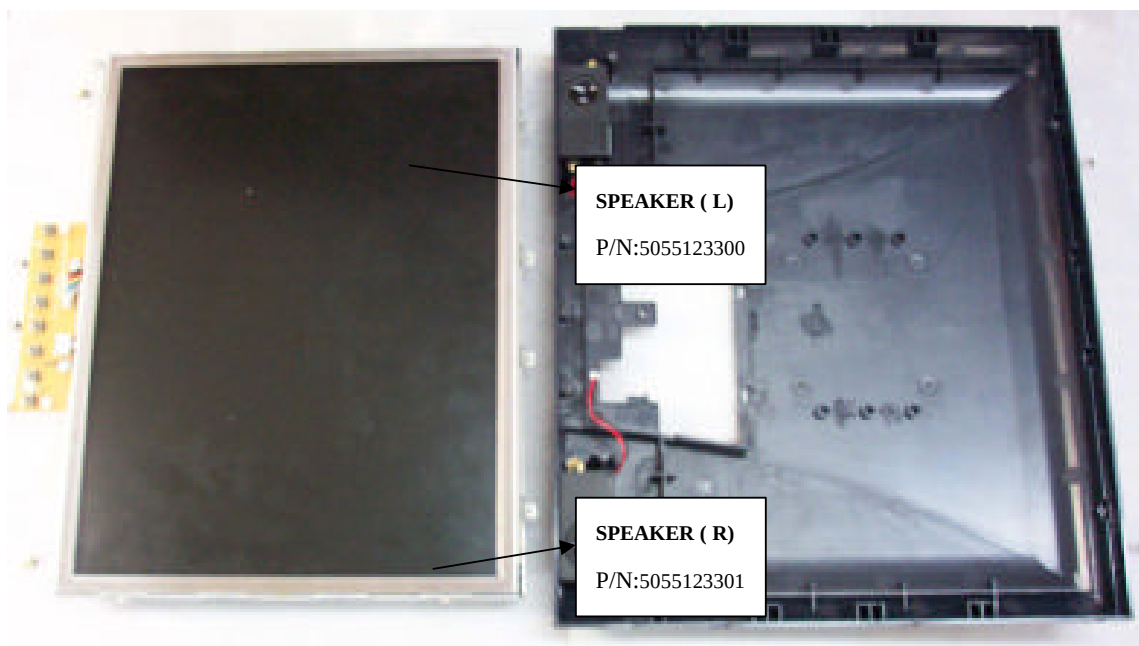
- Remove key control cover from LCD Monitor Chassis



- 3. Unscrew two screws to separate Back cover and Turn front cover separate from back cover

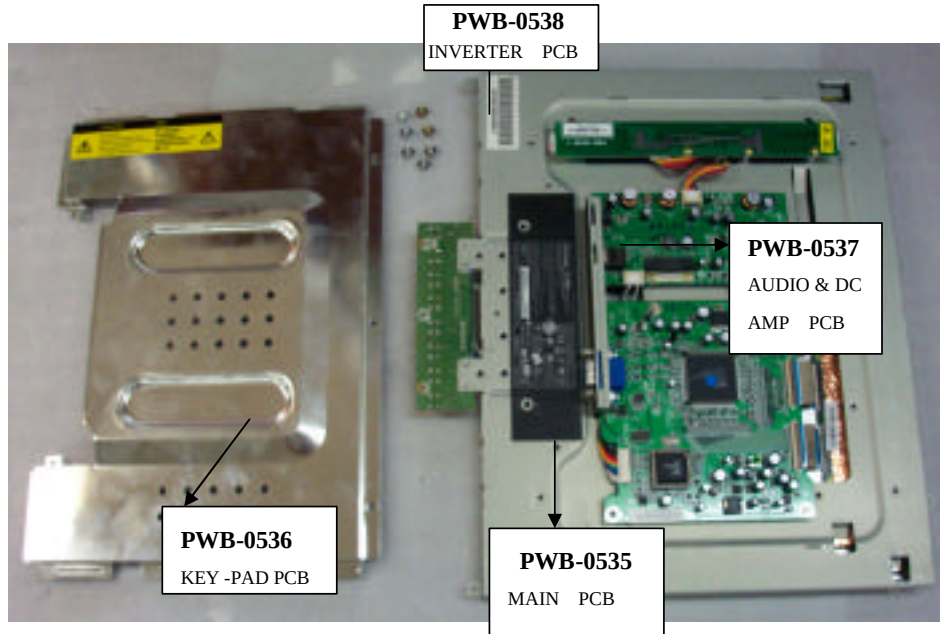


- Unscrew seven screw to separate LCD panel assembly and disconnect two connectors to remove key control Board

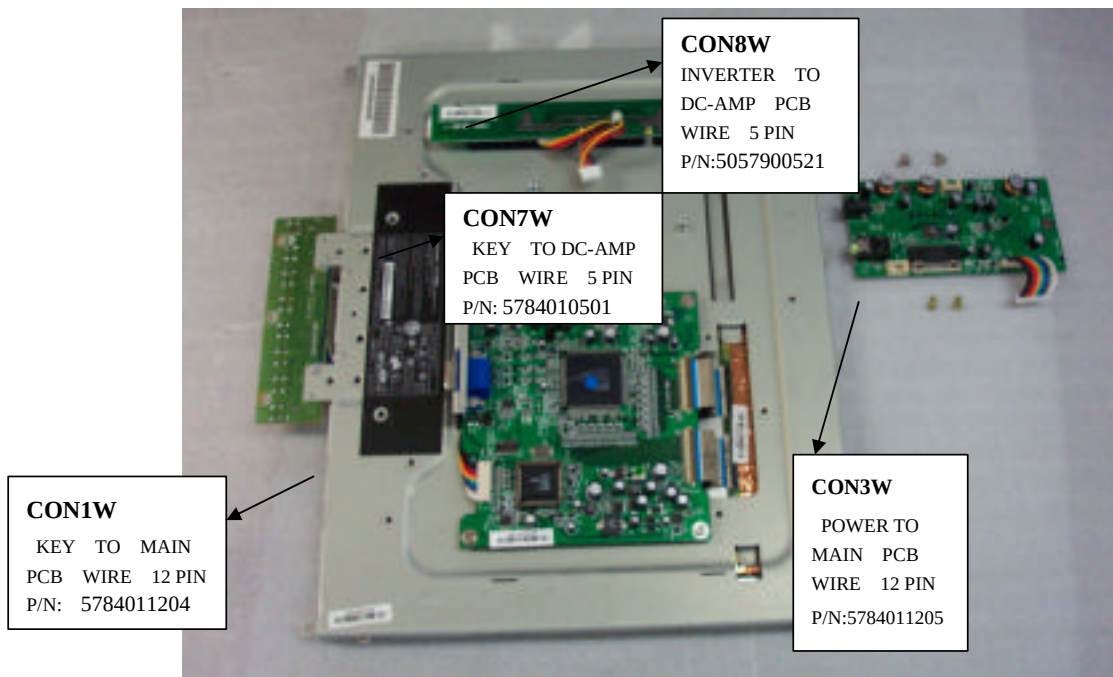


5-2 Disassembly of Key Board PWB-0536, Inverter Board PWB-0538 , Main Board PWB-0535 and DC-AMP &Audio Board PWB-0537

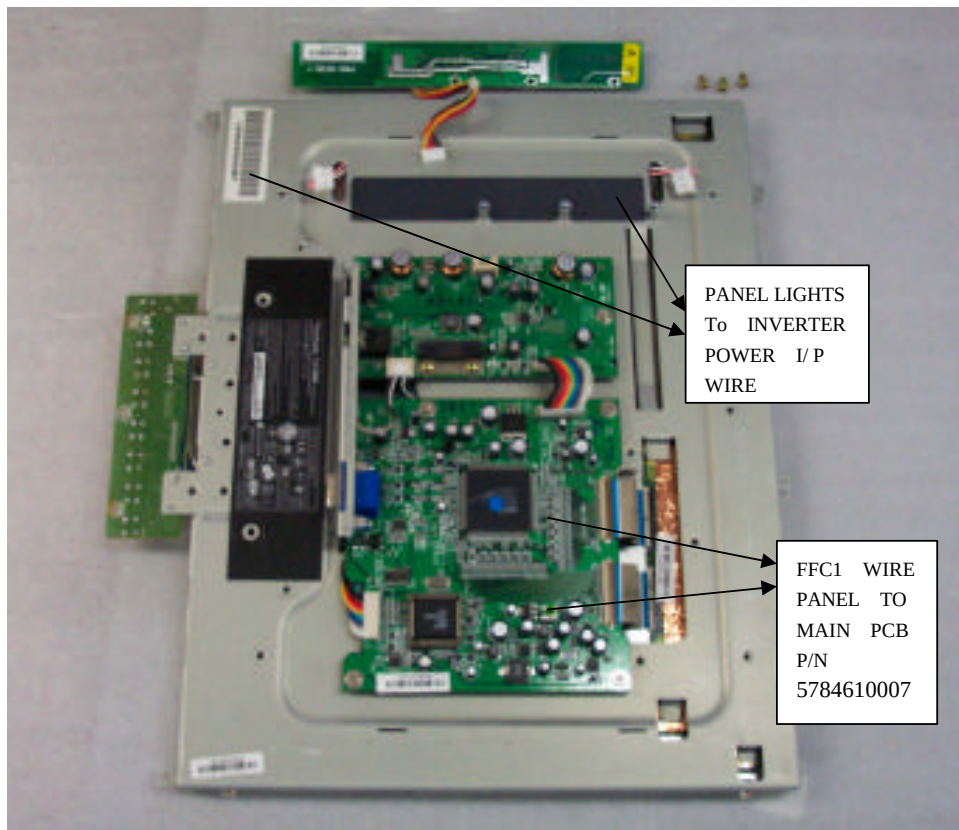
- Unscrew eight screws that secure shielding plate and remove LCD chassis



- Unscrew four screws that secure Power & Audio Board and disconnect three connectors to remove Main Board and Inverter Board.



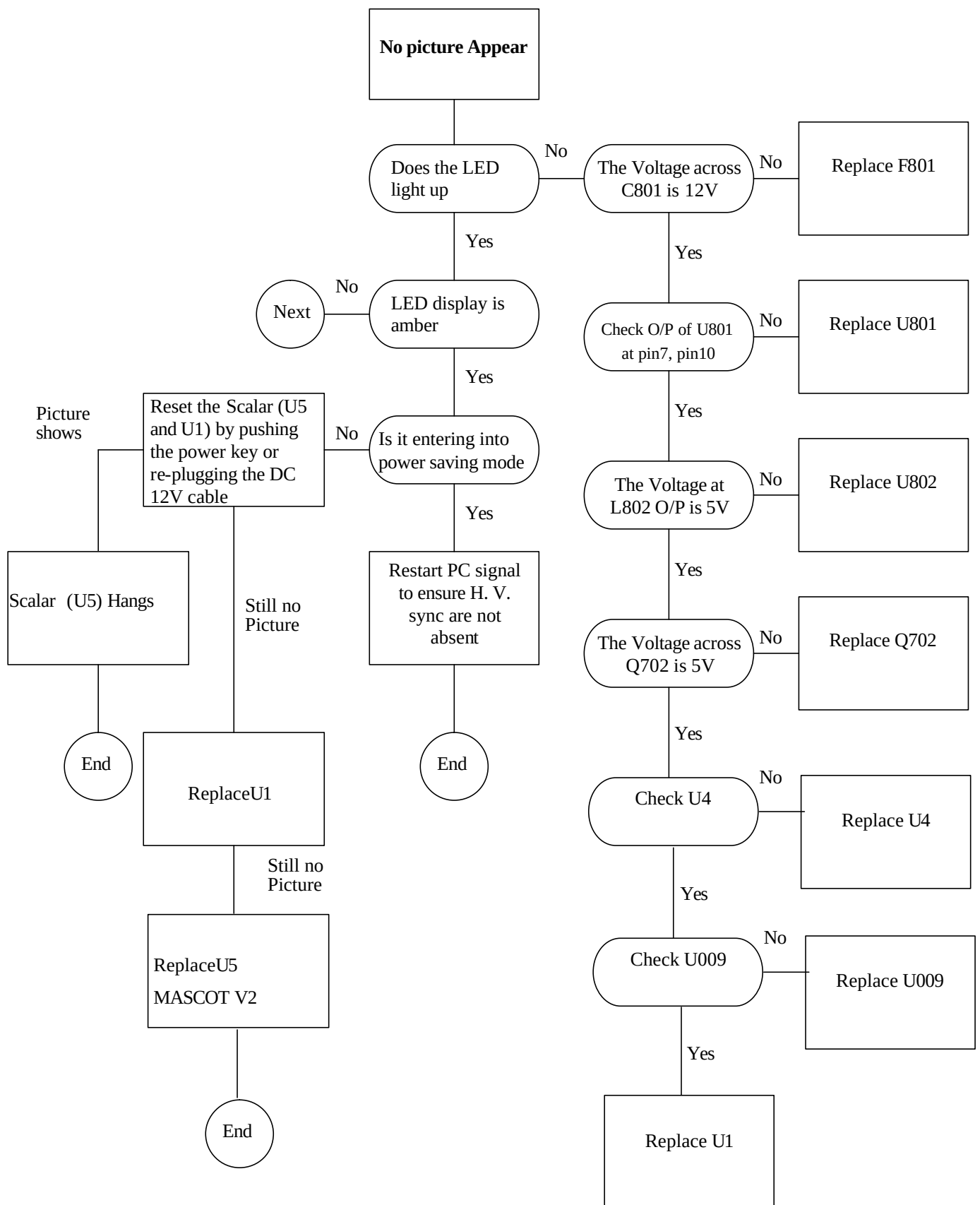
- Unscrew three screws that secure Inverter Board and disconnect three connectors to remove Power & Audio Board and LCD Panel

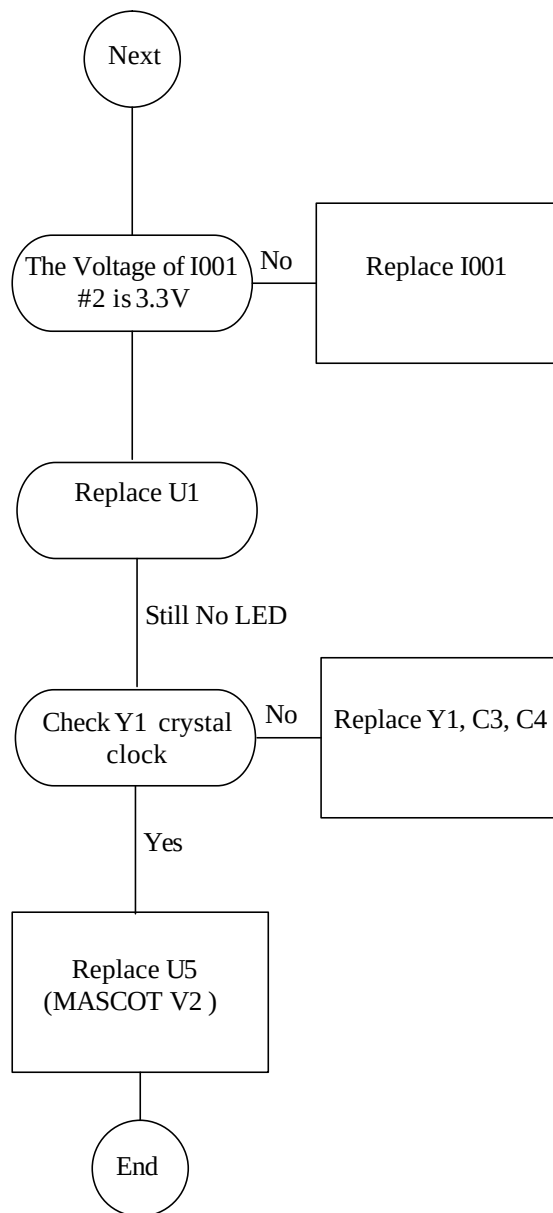


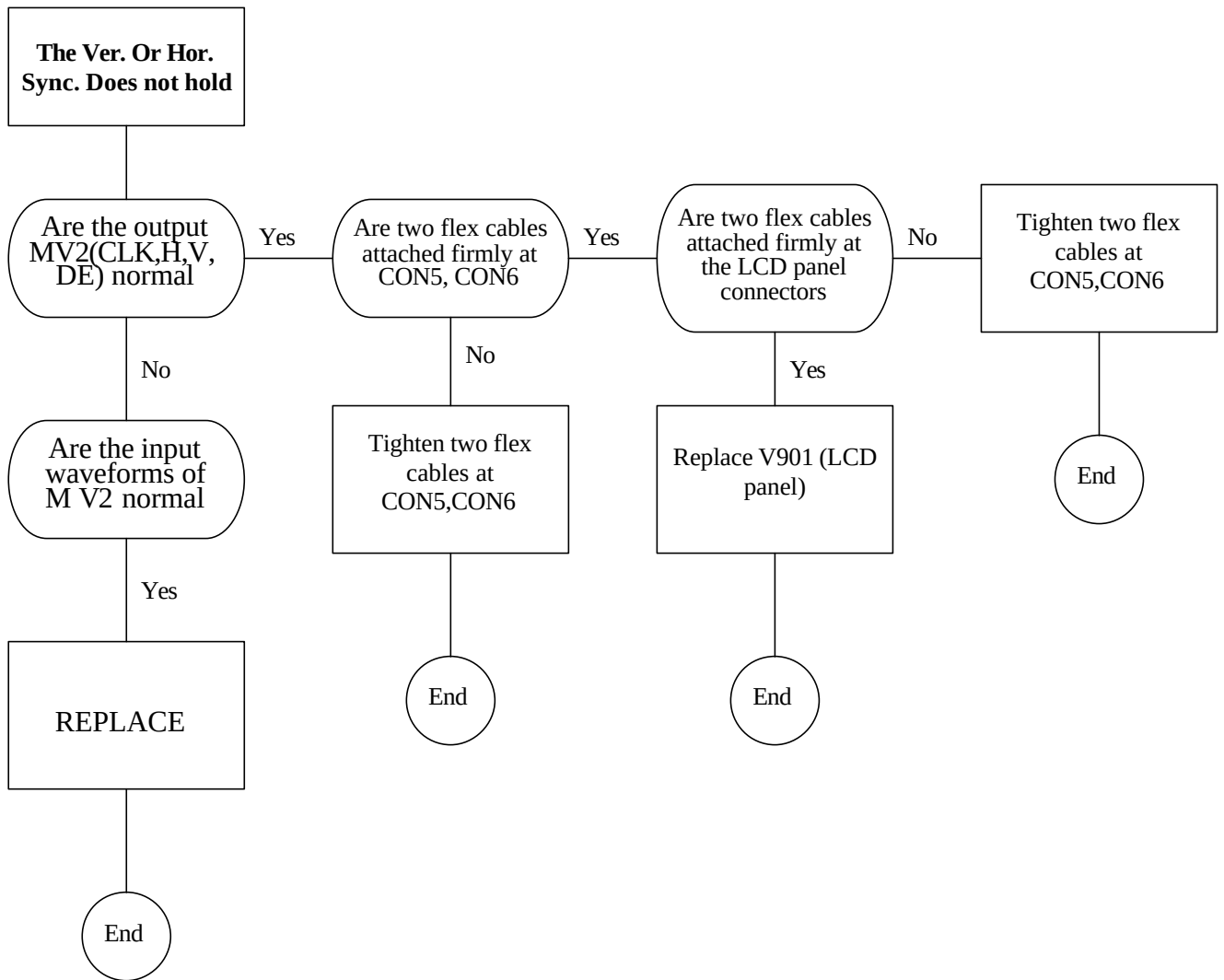
- Unscrew four screws that secure Main Board and disconnect four connectors to remove Power & Audio Board and LCD Panel.

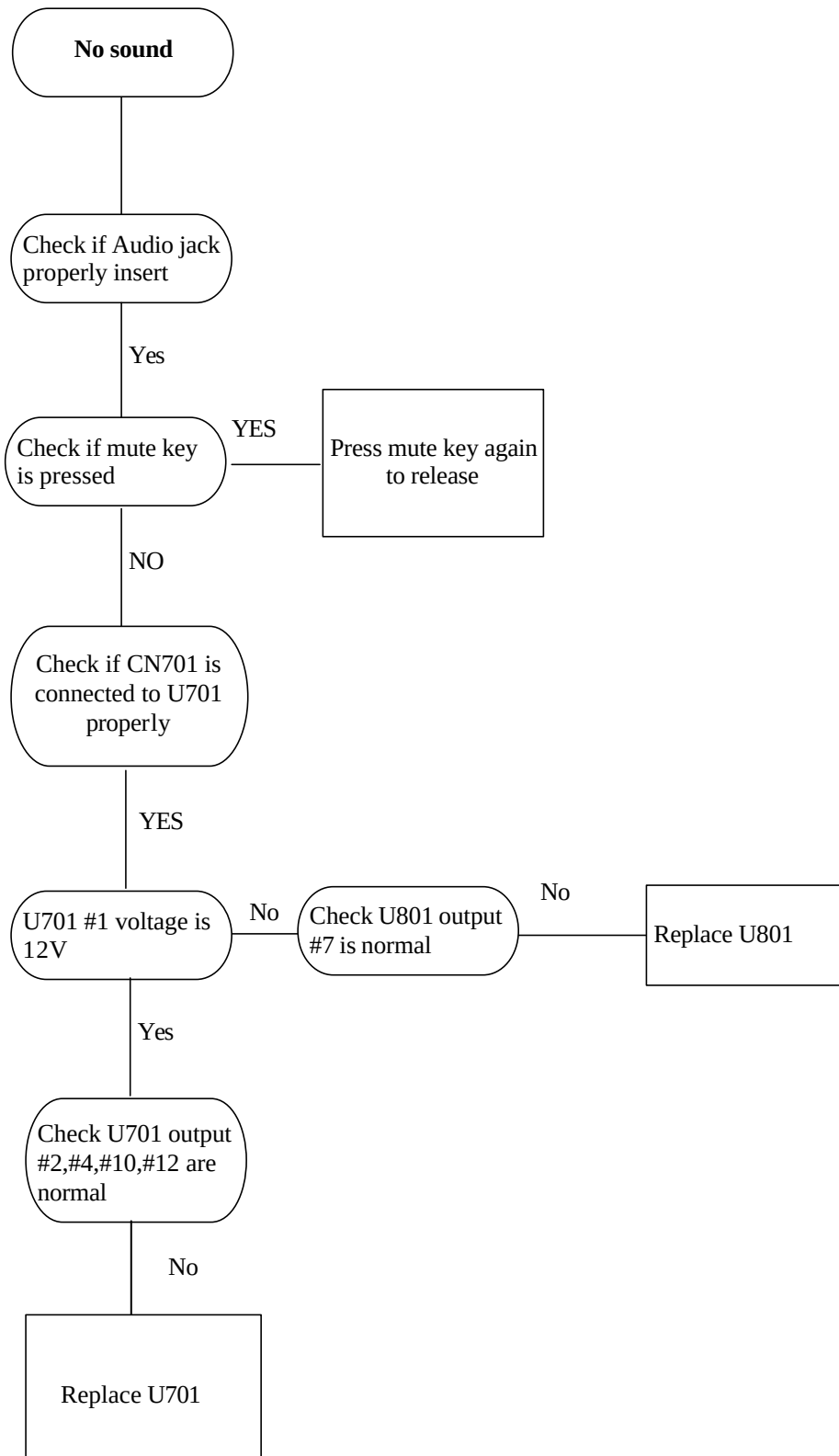


6. Trouble Shooting Flow Chart









7. Recommended Spare Parts List

VG500b Recommended Spare Parts List

Item	Location	VG500B	ViewSonic P/N	ViewSonic P/N	Description
PCB ASSEMBLY					
1	PWB-0535	5097616700	B-MB-0201-0787	B-MB-0201-0787	MAIN Board Ass'y PWB-0535
2	PWB-0538	5097617100	B-SB-0221-0560	B-SB-0221-0560	Inverter Board Ass'y PWB-0538
3	PWB-0536	5097616800	B-KB-0207-0041	B-KB-0207-0041	Key Pad Board Ass'y PWB-0536
4	PWB-0537	5097616900	B-AC-0215-0044	B-AC-0215-0044	Audio&Power Board Ass'y PWB-0537
CABINET					
5	3C06	5733715801	C-FP-0301-0896	C-FP-0301-0401	F/C
6	3C07A	5733715901	M-CV-0830-2341	M-CV-0830-2473	F/C2 (Speaker cover)
7	3C01	5733715701	C-BC-0302-0579	C-BC-0302-0535	Back Cover
8	3C14	5731274500	M-MS-0808-8273	M-MS-0808-8273	SHIELD Plate
9	2B01	5731708100	M-MS-0808-8278	M-MS-0808-8278	Hinge (R)
10	2B02	5731708200	M-MS-0808-8279	M-MS-0808-8279	Hinge (L)
11	3C02	5731433800	M-MS-0808-8275	M-MS-0808-8275	Mounting Bracket
12	2B05	5733716001	PL-PS-0715-0169	PL-PS-0715-0209	Base
13	3C13	5731593000	M-MS-0808-8277	M-MS-0808-8277	Code keeper
14	3C07B	5733636901	PL-BT-0706-0110	PL-FK-0709-0132	Button (Function key)
15	3C07C	5733716200	M-MS-0808-8284	M-MS-0808-8284	INDICATE (LED Lens)
16	3C05	5731433901	M-MS-0808-8276	M-MS-0808-8276	Kensington Security Slot
17	3C15	5736138100	M-MS-0808-8285	M-MS-0808-8285	Mount Rubber
18	2B08	5733716101	M-CV-0830-2340	M-CV-0830-2474	Hinge Cover
19	2B07	5733576901	M-MS-0808-8283	M-MS-0808-8891	Neck2
20	2B03	5731274401	M-MS-0808-8272	M-MS-0808-8272	Neck Plate
21	2B04	5731274301	M-MS-0808-8271	M-MS-0808-8271	Base Plate
22	2B04C	5736138200	PL-PD-0714-0072	PL-PD-0714-0072	Foot Rubber 1
23	2B04D	5736138300	PL-PD-0714-0073	PL-PD-0714-0073	Foot Rubber 2
24	2B04E	5736138400	PL-PD-0714-0074	PL-PD-0714-0074	Foot Rubber 3
25	2B06	5733576801	M-MS-0808-8282	M-MS-0808-8890	Neck 1 (Front)
26	2B09	5733422901	M-MS-0808-8351	M-MS-0808-8889	View Sonic Logo
27	3C09	5733422700	M-MS-0808-8280	M-MS-0808-8280	Bird Logo
28	3C08	5733422800	M-MS-0808-8281	M-MS-0808-8281	Name Plate
29	CON1W	5784011204	M-MS-0808-8287	M-MS-0808-8287	Key Pad Wire 12PIN
30	CON3W	5784011205	M-MS-0808-8288	M-MS-0808-8288	Key Pad Wire 5PIN
44	CON7W	5784010501	M-MS-0808-8286	M-MS-0808-8286	Key TO DC-AMP Wire
45	CON8W	5057900521	M-WR-0828-0656	M-WR-0828-0656	Inverter Wire
PACKAGE					
36	1P01	9512880157	P-BX-0601-0728	P-BX-0601-0878	Carton box
37	1P02	9522880157	P-FM-0602-0608	P-FM-0602-0608	EPS -Top
38	1P03	9522880257	P-FM-0602-0609	P-FM-0602-0609	EPS-Bottom
39	IL01	5030543103	M-LB-0813-0934	M-LB-0813-0935	BACK LABEL
40	ADAPT	5061369420	A-AD-0114-0193	A-AD-0114-0193	Power ADAPTER(LITEON)
41	Y001	5030043003(1)	A-CD-VG500B	A-CD-VG500-2	User's Guide(CD-ROM)
42	P001	5056705900	A-PC-0106-0169	A-PC-0106-0169	Power Cord (UL)
43	P002	5056705939	A-PC-0106-0170	A-PC-0106-0170	Power Cord (VDE)
44	AUDIO	5784010102	A-AU-0120-0035	A-AU-0120-0035	AUDIO Cable
45	15P1	5784011503	A-VC-0101-0272	A-VC-0101-0272	VGA Cable

VG500b BOM LIST

BOM LIST PCB- POWER & AUDIO PWB-0537 ASSEMBLY

Item	ViewSonic P/N	Ref. P/N	Description	Location	Q'ty
1	#N/A	5782510001	CONNECTOR S5B-PH-K	CN701,CN830	2
2	#N/A	5230005491	CAPACITOR MONOLITHIC SMD REEL 0.1U 25v 0603	C703,C704,C714,C812,C830,C831,C833	7
3	#N/A	5214020202	CAPACITOR ELECTROLYTIC MVY 470uF/16V	C801,C705	2
4	#N/A	5218007891	CAPACITOR ELECTROLYTIC MVY 10uF/16V	C708,C706	6
5	#N/A	5250810591	CAPACITOR ELECTROLYTIC MVY 1uF/50V	C710,C711,C804	2
6	#N/A	5030610291	CAPACITOR MONOLITHIC SMD REEL 1000pF 25v 0603	C715,C716	2
7	#N/A	5218002891	CAPACITOR ELECTROLYTIC MVY 100uF/25V	C707,C802,C803,C805	4
8	#N/A	5230610391	CAPACITOR MONOLITHIC SMD REEL 10nf 25v 0603	C806	1
9	#N/A	5230017491	CAPACITOR MONOLITHIC SMD REEL 3.3nf 25v 0603	C807	1
10	#N/A	5240618191	CAPACITOR MONOLITHIC SMD REEL 180pF 25v 0603	C808	1
11	#N/A	5230011191	CAPACITOR ELECTROLYTIC MVY 1uF/16V	C809	1
12	#N/A	5216017602	CAPACITOR ELECTROLYTIC MVY 220uF/10V	C811,C810	2
13	#N/A	5216017602	CAPACITOR ELECTROLYTIC MVY 220uF/16V	C832	1
14	#N/A	5218006291	CAPACITOR ELECTROLYTIC MVY 33uF/10V	C834	1
15	#N/A	5230610391	CAPACITOR MONOLITHIC SMD REEL 10nf 25v 0603	C835	1
16	E-D-0403-2091	6611070452	DIODE RECTIFIER SBD 2A/40V	D801	1
17	E-FS-0410-0099	5054440003	FUSE BRICK 4A/125V	F801	1
18	#N/A	5782511011	CONNECTOR T-B12B_ZR	JP2	1
19	#N/A	5782710361	CONNECTOR PHONE JACK 5P DIP 3.5MM R/A GREEN	J701	1
20	#N/A	5056300708	DC POWER JACK LD-0202H-2.5	J800	1
21	#N/A	5062141600	COIL CHOKE SMD 10UH 600KHZ	L704	1
22	#N/A	5062130208	COIL CHOKE 2CB160808A800	L703,L702	2
23	#N/A	5062142300	COIL CHOKE CHK-423	L801,L830	2
24	#N/A	5062142200	COIL CHOKE CHK-422	L802	2
25	E-Q-0402-1561	6621039854	TR NPN HF DTC114TKA/KSR1110	Q702,Q703,Q831	3
26	#N/A	5134327409	RESISTOR.THICK FILM CHIP 0603 1/16W 270K	R702	1
27	E-R-0405-7078	5134347209	RESISTOR.THICK FILM CHIP 0603 1/16W 4.7K	R703,R704	2
28	#N/A	5134310309	RESISTOR.THICK FILM CHIP 0603 1/16W 10K	R700,R705,R715,R803 R830,R831	6
29	#N/A	5134300009	RESISTOR.THICK FILM CHIP 0603 1/16W 0R	R706,R717,R804,R805,R834	5
30	#N/A	5134310409	RESISTOR.THICK FILM CHIP 0603 1/16W 100K	R705,R718	1
31	#N/A	5134322309	RESISTOR.THICK FILM CHIP 0603 1/16W 22K	R707	1
32	#N/A	5134362209	RESISTOR.THICK FILM CHIP 0603 1/16W 6.2K	R708,R709	2
33	#N/A	5134310209	RESISTOR.THICK FILM CHIP 0603 1/16W 1K 1%	R710,R711,R832	3
34	#N/A	5134141039	RESISTOR.THICK FILM CHIP 0603 1/16W 410K 1%	R801	1
35	#N/A	5134139029	RESISTOR.THICK FILM CHIP 0603 1/16W 39K 1%	R802	1
36	#N/A	5134322209	RESISTOR.THICK FILM CHIP 0603 1/16W 2.2K	R833	1
37	E-IC-0401-2568	6644005851	IC AUDIO POWER AN7522	U701	1
38	#N/A	6640010250	IC VOLTAGE REGULATOR MP1410ES	U801	1
39	E-D-0403-2047	6613003059	DIODE SMD SWITCHING 1N4148	D701	1

VG500b BOM LIST PCB-INVERTER PWB-0538 ASSEMBLY

Item	ViewSonic P/N	Ref. P/N	Description	Location	Q'ty
1	#N/A	5130004291	CAPACITOR MONOLITHIC SMD REEL 4.7uF/16V 1206	C003,C014	2
2	#N/A	5230014191	CAPACITOR MONOLITHIC SMD REEL 2.2uF/16V 0805	C004,C011	2
3	#N/A	5240003591	CAPACITOR MONOLITHIC SMD REEL 18P 3KV 1808	C005,C017	2
4	#N/A	5230017391	CAPACITOR MONOLITHIC SMD REEL 22000P 50V 0603	C006,C018	2
5	#N/A	5240002791	CAPACITOR MONOLITHIC SMD REEL 220P 50V 0603	C007	1
6	#N/A	5230013091	CAPACITOR MONOLITHIC SMD REEL 0.01U 25V 0603	C008	1
7	#N/A	5230014091	CAPACITOR MONOLITHIC SMD REEL 0.68UF 10V 0805	C009	1
8	#N/A	5230013391	CAPACITOR MONOLITHIC SMD REEL 0.47UF 10V 0805	C010	1
9	#N/A	5230013291	CAPACITOR MONOLITHIC SMD REEL 6800P 50V 0603	C013	1
10	#N/A	5230013191	CAPACITOR MONOLITHIC SMD REEL 15000P 25V 0603	C019	1
11	#N/A	5230615291	CAPACITOR CERAMIC CK45 1500P 50V	C020	1
12	#N/A	5230001691	CAPACITOR MONOLITHIC SMD REEL 47000P 16V 0603	C021,C027	2
13	#N/A	5230017491	CAPACITOR MONOLITHIC SMD REEL 3300P 50V 0603	C055,C056	2

BOM LIST PCB-POWER & AUDIO PWB-0537 ASSEMBLY

Item	ViewSonic P/N	Ref. P/N	Description	Location	Q'ty
14	E-D-0403-2072	6615009858	DIODE ZENER MMSZ5232B	D001,D006,D008	3
15	#N/A	6613003753	DIODE SMD SWITCHING 1N4148	D003,D004,D009,D010,D036	5
16	E-D-0403-2126	6613000554	DIODE SWITCHING BAV99 75V 0.15A	D020,D021,D022,D023	4
17	E-FS-0410-0112	5054430090	FUSE SMD 63V/3A	F001	1
18	E-IC-0401-2520	6646000650	IC DIGITAL OZ960S	I001	1
19	E-IC-0401-2889	6645010202	IC DIGITAL MOS TPC-8401	I002,I003	2
20	#N/A	5062128356	COIL CHOKE YC54T 4R7M	L001	1
21	#N/A	5056900313	BASE & PIN S5B-PH-SM3-TB	P001	1
22	#N/A	5056415282	BASE & PIN SM02 (8.0) B-BNS-1-TB	P002,P003	2
23	E-Q-0402-1180	6622002257	TR NPN SMD MMBT3904	Q001	1
24	E-Q-0402-1621	6626004652	TR FET TMOS 2N7002LT	Q003,Q004,Q005,Q006	4
25	#N/A	5134114039	RESISTOR.THICK FILM CHIP 0603 1/16W 140K 1%	R001	1
26	#N/A	5132310109	RESISTOR.THICK FILM CHIP 0805 1/10W 100R	R002	1
27	#N/A	5134110039	RESISTOR.THICK FILM CHIP 0603 1/16W 100K 1%	R003,R015	2
28	#N/A	5134136029	RESISTOR.THICK FILM CHIP 0603 1/16W 36K 1%	R004	1
29	#N/A	5134110029	RESISTOR.THICK FILM CHIP 0603 1/16W 10K 1%	R005,R013,R014,R016,R031	5
30	#N/A	5132322009	RESISTOR.THICK FILM CHIP 0805 1/10W 22R	R006,R018,R022	3
31	#N/A	5134151019	RESISTOR.THICK FILM CHIP 0603 1/16W 5.1K 1%	R007	1
32	#N/A	5134168009	RESISTOR.THICK FILM CHIP 0603 1/16W 680R 1%	R008,R009	2
33	#N/A	5134140299	RESISTOR.THICK FILM CHIP 0603 1/16W 402R 1%	R010,R017	2
34	E-R-0405-7073	5134156029	RESISTOR.THICK FILM CHIP 0603 1/16W 56K 1%	R011	1
35	#N/A	5134139039	RESISTOR.THICK FILM CHIP 0603 1/16W 390K 1%	R012	1
36	#N/A	5134127029	RESISTOR.THICK FILM CHIP 0603 1/16W 27K 1%	R019	1
37	#N/A	5134310509	RESISTOR.THICK FILM CHIP 0603 1/16W 1M	R020,R021,R027	3
38	#N/A	5134351409	RESISTOR.THICK FILM CHIP 0603 1/16W 510K	R024	1
39	#N/A	5134300009	RESISTOR.THICK FILM CHIP 0603 1/16W 0R	R025	1
40	#N/A	5134151029	RESISTOR.THICK FILM CHIP 0603 1/16W 51K 1%	R029	1
41	E-T-0408-0513	5061376800	POWER TRANSFORMER CD-T-1032-575T SMD	T001,T002	2

BOM LIST PCB-MAIN PWB-0535 ASSEMBLY

Item	ViewSonic P/N	Ref. P/N	Description	Location	Q'ty
1	#N/A	5782510261	CONNECTOR T-S12BZR	CON1	1
3	#N/A	5782511011	CONNECTOR T-B12B-ZR	CON3	1
4	#N/A	5782711011	CONNECTOR 1216-064-15S-AAC	CON4	1
5	#N/A	5782971502	CONNECTOR IL-FHR-50S-HF	CON5,CON6	2
6	#N/A	5240615191	CAPACITOR MONOLITHIC SMD REEL 150P 0603	CP1	1
7	#N/A	5230656291	CAPACITOR MONOLITHIC SMD REEL 5600P 0603	CZ1	1
8	#N/A	5218007991	CAPACITOR ELECTROLYTIC MVY 100uF/16V	C1	1
9	#N/A	5230013991	CAPACITOR MONOLITHIC SMD REEL 0.1U 0603	C2,C5,C6,C7,C8,C9,C10,	48
				C11,C12,C13,C14,C17,C19,	
				C21,C22,C25,C26,C28,C33,	
				C39,C42,C46,C48,C59,C60,	
				C61,C62,C63,C64,C65,C66,	
				C67,C68,C69,C70,C71,C72,	
				C73,C76,C129,C133,C134,	
				C136,C141,C145,C146,C151,	
				C154	
10	#N/A	5240622091	CAPACITOR MONOLITHIC SMD REEL 22P 0603	C3,C4,C78,C79	4
11	#N/A	5250810591	CAPACITOR MONOLITHIC SMD REEL 1UF 0805	C15	1
12	#N/A	5214020202	CAPACITOR ELECTROLYTIC MVY 470uF/16V	C16	1
13	#N/A	5218006391	CAPACITOR ELECTROLYTIC MVY 220uF/16V	C18,C140,C149,C153	4
14	#N/A	5230610391	CAPACITOR MONOLITHIC SMD REEL 0.01U 0603	C23,C55,C56	3
15	#N/A	5240610091	CAPACITOR MONOLITHIC SMD REEL 10P 0603	C29,C30,C31,C32	4
16	E-C-0404-4903	5240610191	CAPACITOR MONOLITHIC SMD REEL 100P 0603	C34,C35,C36,C37,C50,C51,	7
	#N/A			C53	
17	#N/A	5218007991	CAPACITOR ELECTROLYTIC MVY 100uF/16V	C38,C40,C43,C44,C45,C128	5
18	#N/A	5218008891	CAPACITOR ELECTROLYTIC MVY 22uF/16V	C41	1

BOM LIST PCB- POWER & AUDIO PWB-0537 ASSEMBLY

Item	ViewSonic P/N	Ref. P/N	Description	Location	Q'ty
19	#N/A	5218007891	CAPACITOR ELECTROLYTIC MVY 10uF/16V	C47,C77,C130,C137,C138,C144,	10
				C147,C148,C150,C152	
20	#N/A	5240647091	CAPACITOR MONOLITHIC SMD REEL 47P 0603	C49,C52,C80,C81,C82,C83,	50
				C84,C85,C86,C87,C88,C89,	
				C90,C91,C92,C93,C94,C95,	
				C96,C97,C98,C99,C100,	
				C101,C102,C103,C104,C105,	
				C106,C107,C108,C109,C110,	
				C111,C112,C113,C114,C115,	
				C116,C117,C118,C119,C120,	
				C121,C122,C123,C124,C125,	
				C126,C127	
21	#N/A	5230647291	CAPACITOR MONOLITHIC SMD REEL 4700P 0603	C54,C57,C58	3
22	#N/A	5218012091	CAPACITOR ELECTROLYTIC MVY 47uF/25V	C131,C132,C143	3
23	#N/A	5240612191	CAPACITOR MONOLITHIC SMD REEL 120P 0603	C135	1
24	#N/A	5240633191	CAPACITOR MONOLITHIC SMD REEL 330P 0603	C139	1
25	#N/A	5218011991	CAPACITOR ELECTROLYTIC MVY 22uF/25V	C142	1
26	E-D-0403-2128	6640007723	IC VOLTAGE REGULATOR KA431AZ	DA1	1
27	E-D-0403-2126	6613000554	DIODE SMD SWITCHING BAV99	DN1,DN2,DN3	3
28	#N/A	6613003753	DIODE SMD SWITCHING 1N4148	D1	1
29	#N/A	6615002200	ZENER DIODE SR24	D2,D3,D4,D5,D6	4
30	#N/A	6615025153	TZM5234B/TZQ5234B/MMSZ5234B	D7	1
31	E-IC-0401-2562	6640003862	IC VOLTAGE REGULATOR RC1117M-3.3	I1	1
32	E-IC-0401-2836	6640003858	IC VOLTAGE REGULATOR LT1117CST-3.3	I2	1
33	E-IC-0401-2571	6646021653	IC LDO RT9164CG	I3	1
34	E-IC-0401-2570	6646021652	CHIP BEAD RT9161A33CG	I4	1
35	#N/A	5062130401	CHIP BEAD 2CB321611A700	L1,L2,L3,L4,L5,L11,L15	7
36	#N/A	5062134801	INDUCTOR MULTILAY CHIP 2CI321611-R15	L10	1
37	#N/A	5062128352	COIL CHOKE SS1003151MS/YC104R*151M	L12	1
38	#N/A	5062135100	COIL CHOKE SMD YC54*680K/SR0604680KS	L13,L14	2
39	E-Q-0402-1180	6622002257	TR NPN SMD MMBT3904	Q1,Q2	2
40	E-Q-0402-7017	6623002956	TR PNP SMD MMBT3906	Q3	1
41	E-Q-0402-1564	6626007054	TR FET MOS SI2303DS/FDN360P	Q4	1
42	E-Q-0402-1561	6621039854	TR NPN HF DTC114TKA/KSR1110	Q5,Q7,Q8,Q10	4
43	E-Q-0402-1563	6626007053	SI2301DS/FDN360P/AO3401	Q6,Q9	2
44	#N/A	5160310156	RESISTOR NETWORK SMD REEL 4.7K*4	RP2,RP3	2
45	#N/A	5160310140	RESISTOR NETWORK SMD REEL 68R*4	RP4,RP5,RP6,RP7,RP8,RP9,	12
				RP10,RP11,RP12,RP13,RP14,	
				RP15	
46	#N/A	5134351109	RESISTOR.THICK FILM CHIP 0603 1/16W 510R	R2,R1	2
47	#N/A	5134315109	RESISTOR.THICK FILM CHIP 0603 1/16W 150R	R3	1
48	E-R-0405-7078	5134347209	RESISTOR.THICK FILM CHIP 0603 1/16W 4.7K	R4,R5,R11,R36,R37	5
49	#N/A	5134310209	RESISTOR.THICK FILM CHIP 0603 1/16W 1K	R6,R7,R13,R8,R9,R47,R49,R55	8
50	#N/A	5134310309	RESISTOR.THICK FILM CHIP 0603 1/16W 10K	R10,R20,R44,R46,R48,R70,	7
				R75	
51	#N/A	5134310109	RESISTOR.THICK FILM CHIP 0603 1/16W 100R	R14,R15,R16,R33,R35,R38,	14
				R39,R40,R41,R51,R57,R61,	
				R62,R63	
52	#N/A	5134310409	RESISTOR.THICK FILM CHIP 0603 1/16W 100K	R17	1
53	#N/A	5134351209	RESISTOR.THICK FILM CHIP 0603 1/16W 5.1K	R18	1
54	#N/A	5134300009	RESISTOR.THICK FILM CHIP 0603 1/16W 0 OHM	R30,R31	2
55	#N/A	5134312109	RESISTOR.THICK FILM CHIP 0603 1/16W 120R	R21,R23,R24,R26,R27,R29	6
56	#N/A	5134175099	RESISTOR.THICK FILM CHIP 0603 1/16W 75R1%	R22,R25,R28	3
57	#N/A	5134322009	RESISTOR.THICK FILM CHIP 0603 1/16W 22R	R34,R32	2
58	#N/A	5134322109	RESISTOR.THICK FILM CHIP 0603 1/16W 220R	R43,R42	2
59	#N/A	5134315109	RESISTOR.THICK FILM CHIP 0603 1/16W 150R	R50,R53,R54,R71	4
60	#N/A	5134322209	RESISTOR.THICK FILM CHIP 0603 1/16W 2.2K	R56,R74,R82	3

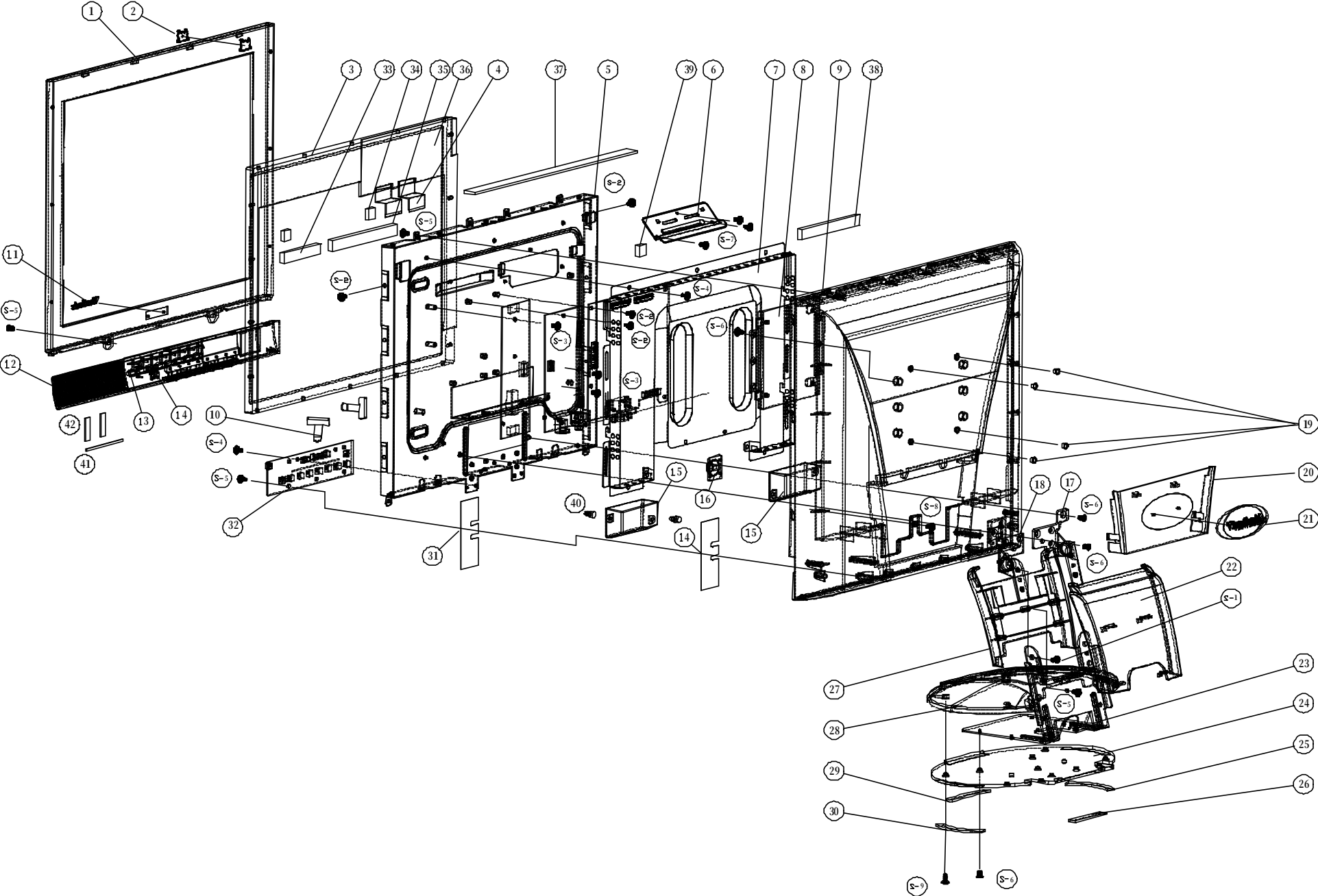
BOM LIST PCB- POWER & AUDIO PWB-0537 ASSEMBLY

Item	ViewSonic P/N	Ref. P/N	Description	Location	Q'ty
61	#N/A	5134315009	RESISTOR.THICK FILM CHIP 0603 1/16W 15R	R60	1
62	#N/A	5134310509	RESISTOR.THICK FILM CHIP 0603 1/16W 1MR	R65	1
63	#N/A	5136006800	RESISTOR THICK FILM CHIP430R 0.22R 1/4W 0805	R72	1
64	#N/A	5134315309	RESISTOR.THICK FILM CHIP 0603 1/16W 15K	R73	1
65	#N/A	5134120209	RESISTOR.THICK FILM CHIP 0603 1/16W 2K 1%	R76	1
66	#N/A	5134127029	RESISTOR.THICK FILM CHIP 0603 1/16W 27K 1%	R77	1
67	#N/A	5134327209	RESISTOR.THICK FILM CHIP 0603 1/16W 2.7K	R78	1
68	#N/A	5136004622	RESISTOR THICK FILM CHIP430R 1W 2512	R79	1
69	#N/A	5134375209	RESISTOR.THICK FILM CHIP 0603 1/16W 7.5K	R80	1
70	#N/A	5134110009	RESISTOR.THICK FILM CHIP 0603 1/16W 100R 1%	R81	1
71	#N/A	5134162009	RESISTOR.THICK FILM CHIP 0603 1/16W 620R 1%	R83	1
72	#N/A	5134112519	RESISTOR.THICK FILM CHIP 0603 1/16W 1.25K 1%	R84	1
73	#N/A	5134118099	RESISTOR.THICK FILM CHIP 0603 1/16W 18 1%	R85	1
74	E-IC-0450-0010	6647024302	W78E65P-40 PLCC 44PIN WINBOND	U1	1
75	E-IC-0401-2892	6647026357	IC MEMORY EEPROM 24LC16	U2	1
76	E-IC-0401-2893	6647051834	S524C20D11/BR24C02F-WE2/AT24C02	U4	1
77	E-IC-0401-2894	6647053550	SCALLOR MASCOT V II	U5	1
78	E-Q-0402-1622	6644009053	IC MOSFET P-CH SI4435DY-T1-A 30V 8A SD-8	U7	1
79	E-IC-0401-2407	6646021651	IC DIGITAL PFM RT34063A	U8	1
80	E-IC-0401-2569	6646010808	IC ANALOG DUAL4-CH BUFFER 74HCT4052	U9	1
81	E-R-0405-6578	5162161020	RESISTOR VR 1K 0.1W	VR1	1
82	E-X-0415-0135	6699114210	CRYSTAL 20PPM 20PF 12MHZ HC-49U/S QE	Y1,Y2	2
83	E-D-0403-2072	6615009858	ZENER DIODE MMSZ5232B	ZD1,ZD2,ZD3,ZD4	4

VG500B(VLCDS24349-1W) BOM LIST CABINET & OTHERS Rev 1b

Item	ViewSonic P/N	Ref. P/N	Description	Location	Q'ty
1	C-FP-0301-0896	5733715801	F/C	3C06	1
2	M-CV-0830-2341	5733715900	F/C2 (Speaker cover)	3C07A	1
3	C-BC-0302-0437	5733715700	Back Cover	3C01	1
4	M-MS-0808-8273	5731274500	SHIELD Plate	3C14	2
5	M-MS-0808-8278	5731708100	Hinge (R)	2B01	1
6	M-MS-0808-8279	5731708200	Hinge (L)	2B02	1
7	M-MS-0808-8275	5731433800	Mounting Bracket	3C02	1
8	PL-PS-0715-0169	5733716001	Base	2B05	1
9	M-MS-0808-8277	5731593000	Code keeper	3C13	3
10	PL-BT-0706-0110	5733636900	Button (Function key)	3C07B	1
11	M-MS-0808-8284	5733716200	INDICATE (LED Lens)	3C07C	1
12	M-MS-0808-8276	5731433901	Kensington Security Slot	3C05	1
13	M-MS-0808-8285	5736138100	Mount Rubber	3C15	4
14	M-CV-0830-2340	5733716101	Hinge Cover	2B08	1
15	M-MS-0808-8283	5733576901	Neck2 (Back)	2B07	1
16	M-MS-0808-8272	5731274401	Neck Plate	2B03	1
17	M-MS-0808-8271	5731274301	Base Plate	2B04	1
18	PL-PD-0714-0072	5736138200	Foot Rubber 1	2B04C	1
19	PL-PD-0714-0073	5736138300	Foot Rubber 2	2B04D	1
20	PL-PD-0714-0074	5736138400	Foot Rubber 3	2B04E	1
21	M-MS-0808-8282	5733576801	Neck 1 (Front)	2B06	1
22	M-MS-0808-8351	5733422901	View Sonic Logo	2B09	1
23	M-MS-0808-8280	5733422700	Bird Logo	3C09	1
24	M-MS-0808-8281	5733422800	Name Plate	3C08	1
25	A-AD-0114-0193	5061369420	ADAPTER PA-1400-02TTD 12V(LITEON)	ADAPT	1
26	M-MS-0808-8287	5784011204	Key Pad Wire 12PIN L=180MM	CON1W	1
27	M-MS-0808-8288	5784011205	Key Pad Wire 12PIN L=30MM	CON3W	1
28	A-CD-VG500B-02	5030043001	User's Guide(CD-ROM)	Y001	1
29	A-PC-0106-0169	5056705900	Power Cord (UL)SVT#18X3C 1.8M BLK	P001	1
30	A-PC-0106-0170	5056705939	Power Cord (VDE)H05VV-F 1.8M BLK	P002	1
31	M-MS-0808-8286	5784010501	Key TO DC-AMP Wire L=170MM	CON7W	1
32	M-WR-0828-0656	5057900521	Inverter Wire L=90MM	CON8W	1
33	A-AU-0120-0035	5784010102	AUDIO Cable	AUDIO	1
34	A-VC-0101-0272	5784011503	VGA Cable	15P1	1
35	P-BX-0601-0878	9513340156	Carton box	1P01	1
36	P-FM-0602-0608	9522880157	EPS -Top	1P02	1
37	P-FM-0602-0609	9522880257	EPS-Bottom	1P03	1
38	M-LCD-0826-0169	5051253608	CPT Panel (RA)TAIWAN CLAA150XG02	PANEL	1
	M-LCD-0826-0174	5051253615	CPT Panel (RB)CHINA CLAA150XG02	PANEL	1
39	M-FC-0809-0080	5784610007	UL2896 L=39mm k=50 p=0.5	FFC1	1
40	E-SK-0412-0076	5055123300	SPEAKER(L) 10 OHM 2.5W	SPK-L	1
41	E-SK-0412-0077	5055123301	SPEAKER(R) 10 OHM 2.5W	SPK-R	1
			KEY-CONTROL PCB PWB-0536		
42	E-D-0403-2127	6618018154	DIODE LED L-319YGFWD-1P1.0	LED1	1
43	M-SW-0815-0187	5054512951	TACT SW. DC12V50MA	S101-S108	8
44	#N/A	57825100021	CONNECTOR 1X5P P=2.0MM-L	CN101	1
45	#N/A	5782510271	CONNECTOR S2B-2R-2P	CN102,CN103	2
46	#N/A	5782511011	CONNECTOR 1X12P P=1.5MM	CN104	1

8. Exploded Diagram And Spare Parts List



VG500b Exploded Parts List

NO	Designation	ViewSonic P/N	Identification No	Qty	Remark
1	F/C	C-FP-0301-0896	5733715801	1	3C06
2	Bird Logo	M-MS-0808-8280	5733422700	1	3C09
3	LCD Panel (RA) TAIWAN (RB) CHINA	M-LCD-0826-0169 M-LCD-0826-0174	5051253608 5051253615	1	PANEL
4	Flexible Flat cable	M-FC-0809-0080	5784610007	1	FFC1
5	LCD Chassis	M-LCD-0826-0212	5731274202	1	3C03
7	Interface Shield	M-MS-0808-8893	5731433700	1	3C04
8	Mounting Bracket	M-MS-0808-8275	5731433800	1	3C02
9	Back Cover	C-BC-0302-0437	5733715700	1	3C01
10	Codekeeper	M-MS-0808-8277	5731593000	3	3C13
11	Name Plate	M-MS-0808-8281	5733422800	1	3C08
12	F/C2	M-CV-0830-2341	5733715900	1	3C07A
13	Button	PL-BT-0706-0110	5733636900	1	3C07B
14	Indicate	M-MS-0808-8284	5733716200	1	3C07C
15	Speaker Ass'Y (L)	E-SK-0412-0076	5055123300	1	SPKL
16	Speaker Ass'Y (R)	E-SK-0412-0077	5055123301	1	SPKR
17	KENSHING TON	M-MS-0808-8276	5731433901	1	3C05
18	HINGE L	M-MS-0808-8279	5731708200	1	2B02
19	HINGE R	M-MS-0808-8278	5731708100	1	2B01
20	Mount Rubber	M-MS-0808-8285	5736138100	4	3C15
21	Hinge Cover	M-CV-0830-2340	5733716101	1	2B08
22	View Sonic Logo	M-MS-0808-8351	5733422901	1	2B09
23	Neck 2	M-MS-0808-8283	5733576901	1	2B07
24	Neck Plate	M-MS-0808-8272	5731274401	1	2B03
25	Base Plate	M-MS-0808-8271	5731274301	1	2B04
26	Foot Rubber 2	PL-PD-0714-0073	5736138300	1	2B04D
27	Foot Rubber 1	PL-PD-0714-0072	5736138200	1	2B04C
28	Neck 1	M-MS-0808-8282	5733576801	1	2B06
29	BASE	PL-PS-0715-0169	5733716001	1	2B05
30	Foot Rubber 3	PL-PD-0714-0074	5736138400	1	2B04E
31	SHIELD PLATE	M-MS-0808-8273	5731274500	2	3C14
32	Key Board	B-KB-0207-0041	5097616800	1	PWB-0536
33	GASKET(V3)	M-MS-0808-8894	5736214632	1	45X10X7
34	GASKET(V1)	M-MS-0808-8895	5736214630	2	10X7X2
35	GASKET(V4)	M-MS-0808-8896	5736214633	1	65X10X7
36	CU FOIL LABEL	M-LB-0813-0872	5736214654	1	130X56X0.05
37	GASKET(V2)	M-MS-0808-8897	5736214631	1	296X7X2
38	GASKET(V5)	M-MS-0808-8898	5736214634	1	80X7X2
39	GASKET(V6)	M-MS-0808-8899	5736214635	1	10X10X7
40	CUDHION RUBBER	M-MS-0808-8900	5642026500	2	6B52R
41	CUDHION(A)	P-FM-0602-0816	5736214013	2	501X3.5X0.6
42	CUDHION(B)	P-FM-0602-0817	5736214014	4	25X5X0.6
S-1	SCREW MACHINE PAN HEAD M4X6 S-PC	M-SCW-0824-6723	7001260616	4	hinge l/ r
S-2	SCREW HEX HEAD M3x6 S-NI	M-SCW-0824-6724	7190571011	4	panel
S-2	SCREW HEX HEAD M3x6 S-NI	M-SCW-0824-6724	7190571011	4	panel
S-2	SCREW HEX HEAD M3x6 S-NI	M-SCW-0824-6724	7190571011	4	if board
S-2	SCREW HEX HEAD M3x6 S-NI	M-SCW-0824-6724	7190571011	2	audio board
S-3	SCREW ISO PP M3x6 S-ZN-CC	M-SCW-0824-6725	7001170612	2	audio board
S-3	SCREW ISO PP M3x6 S-ZN-CC	M-SCW-0824-6725	7001170612	3	inverter board
S-4	TS PAN CLR S-TITE M3x6 S-ZN	M-SCW-0824-6726	7132160651	2	key board
S-4	TS PAN CLR S-TITE M3x6 S-ZN	M-SCW-0824-6726	7132160651	7	interface shield
S-5	SCREW PZP M3x8 P TYPE S-PC	M-SCW-0824-6727	7134161186	3	key board
S-5	SCREW PZP M3x8 P TYPE S-PC	M-SCW-0824-6727	7134161186	4	neck plate
S-5	SCREW PZP M3x8 P TYPE S-PC	M-SCW-0824-6727	7134161186	4	b/c + chassis
S-5	SCREW PZP M3x8 P TYPE S-PC	M-SCW-0824-6727	7134161186	2	fc+b/c
S-6	SCREW ISO MACHINE FLAT HEAD M4X8L	M-SCW-0824-6728	7004261116	7	base plate
S-6	SCREW ISO MACHINE FLAT HEAD M4X12L	M-SCW-0824-6729	7004261616	4	Hinge l

NO	Designation	ViewSonic P/N	Identification No	Qty	Remark
S-6	SCREW ISO MACHINE FLAT HEAD M4X12L	M-SCW-0824-6729	7004261616	4	Hinge r
S-6	SCREW ISO MACHINE FLAT HEAD M4X8L	M-SCW-0824-6728	7004261116	6	mounting bracket
S-7	SCREW PRWS M3x4 S-TITE S-ZN-CC	M-SCW-0824-6730	7131160252	3	ffc plate
S-8	TS PAN CLR S-TITE M3x10 S-ZN	M-SCW-0824-6731	7132161456	1	b/c + chassis
S-9	SCREW TAPPING FLAT HEAD-2 M3X6 S-ZN-CC	M-SCW-0824-6732	7034160656	4	base plate

9. Block Diagram

9-1 Inverter Board Circuit

The diagram of inverter board circuit is shown in Appendix (PWB-0538). The inverter supplies power for the LCD panel back light.

9-2 Power supply Board Circuit

Please refer to 2.0 power Schematic sheet in Appendix. The 12Vdc from adaptor output is fed into J800 as regulated power for U801 (AO4403), and as inverter main power on pin 1 of CN830. U801 provides 5Vdc to main board.

9-3 Scaling controller Board Circuit

U5, the scaling IC of MRT MASCOT V2 is a highly integrated System-on-a-Chip with very powerful functions, including integrated 8 bit triple-channel ADC/PLL, programmable On Panel timing controller, OSD engine, and PWM back light intensity control.

The Scaling IC features an integrated timing controller (TCON) that connects directly to commercially available row and column drivers. All TCON signals OCLK, ECK, ORGB, ERGB, OSP, ESP, OPOL, OINV, and EINV could be programmable drive strengths and can be disabled to control Panel.

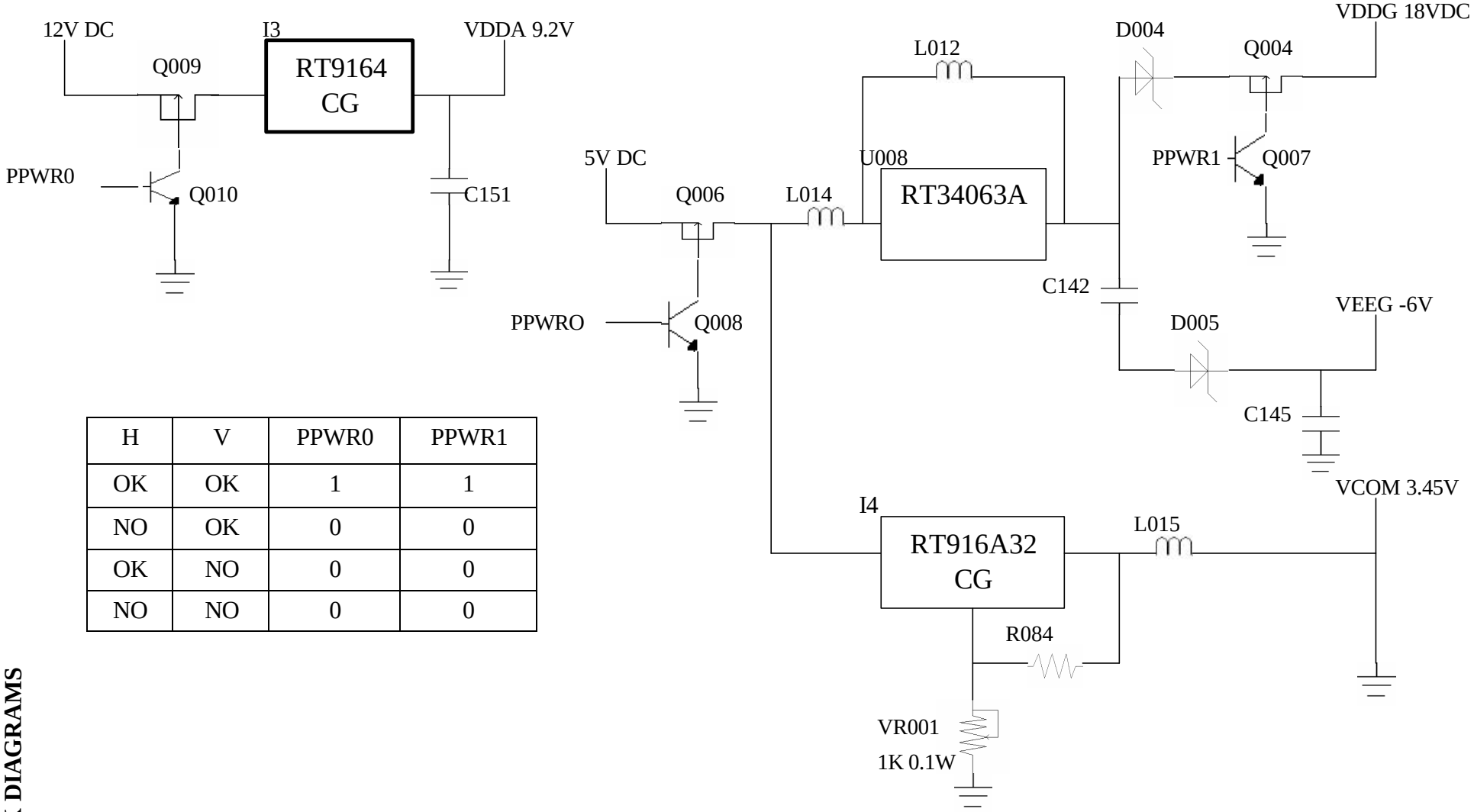
U1, the MCU, in addition to communicating and controlling scaling IC U5, also controls other functions for the keypads, volume, and panel power.

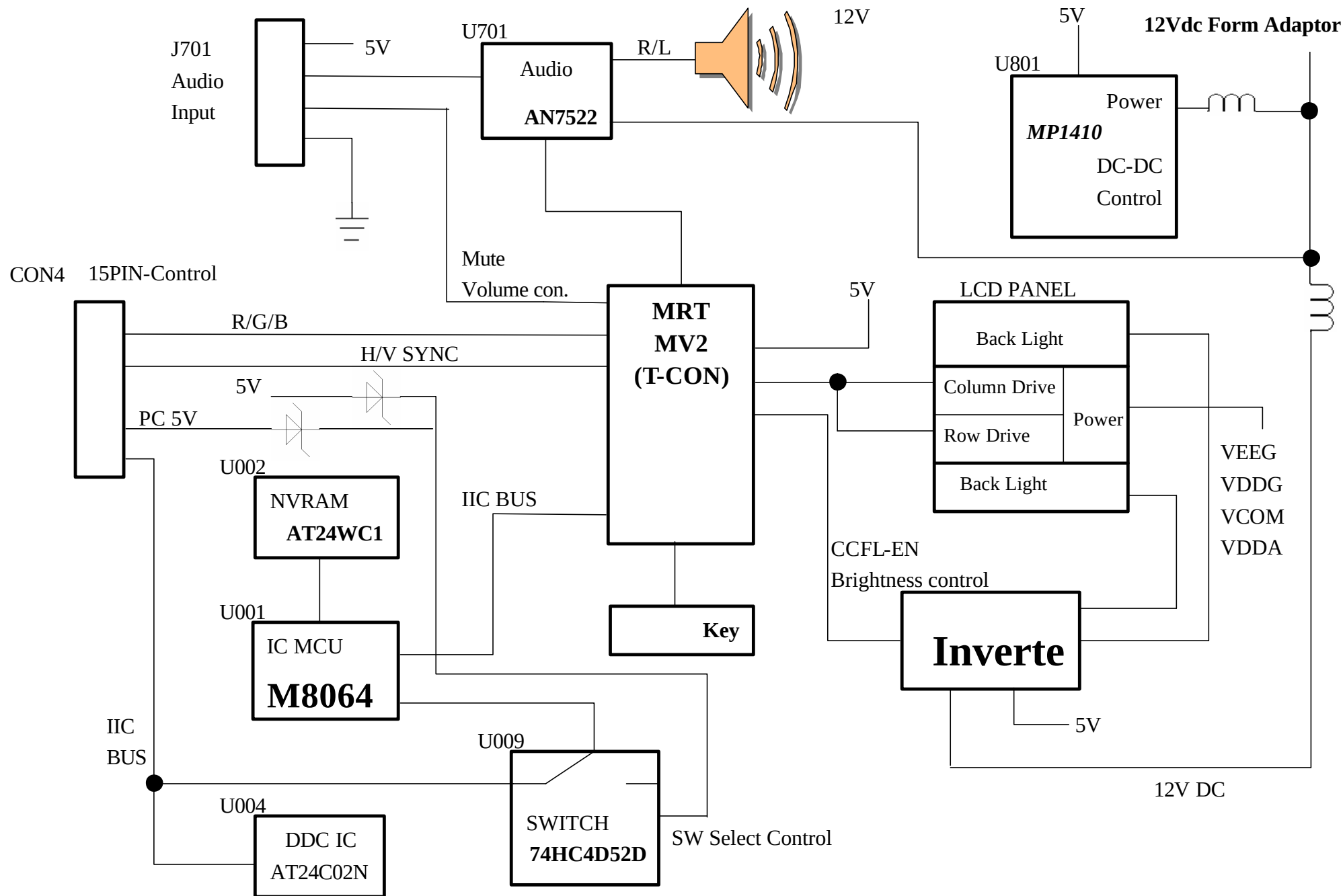
The DDC memory chip of U4 stores DDC data and the NVRAM chip stores timings and setting data.

The NVRAM gets serial number data from the DDC chip, so the SDA and SCL ports connect together. In order to avoid conflict on the I2C interface while the host gets DDC data from U4, electrical switching of U009 is implemented as an isolation role controlled by scaling IC pin GPIO7.

9-4 Audio Circuit

Please refer to 7.0 Sound Amp schematic sheet, the audio Right/Left channels are fed into pin 6 /8 of sound AMP U701 (AN7522) while Audio plug is inserted on J701 jack. The sound output amplitude depends on the bias voltage on pin 9 of U701, which is always controlled by Q702. When mute is activated, the Q703 will be forced to saturation to block sound output. When standby is activated, the sound outputs of U701 will drive speakers via CN701 connector.

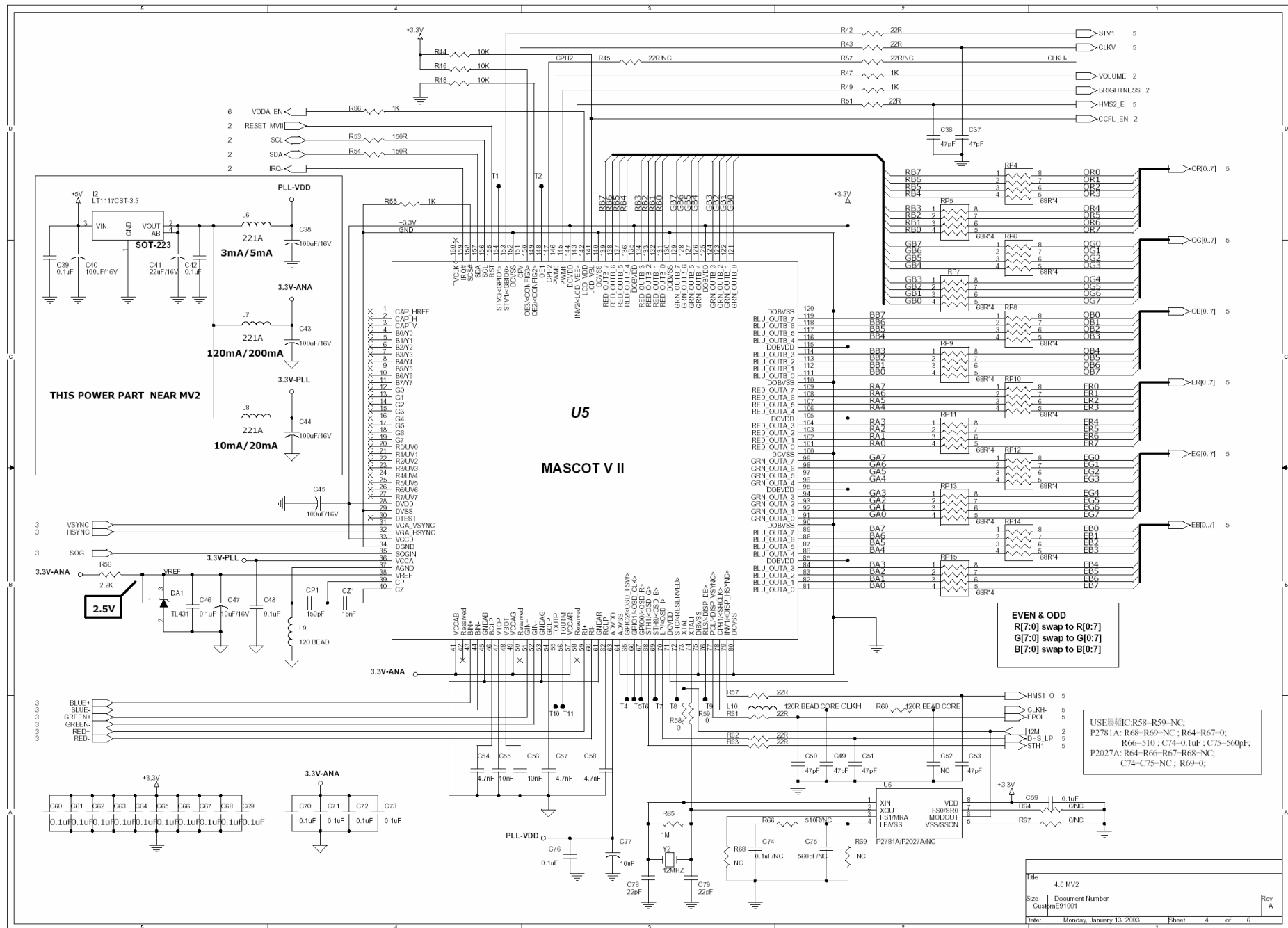


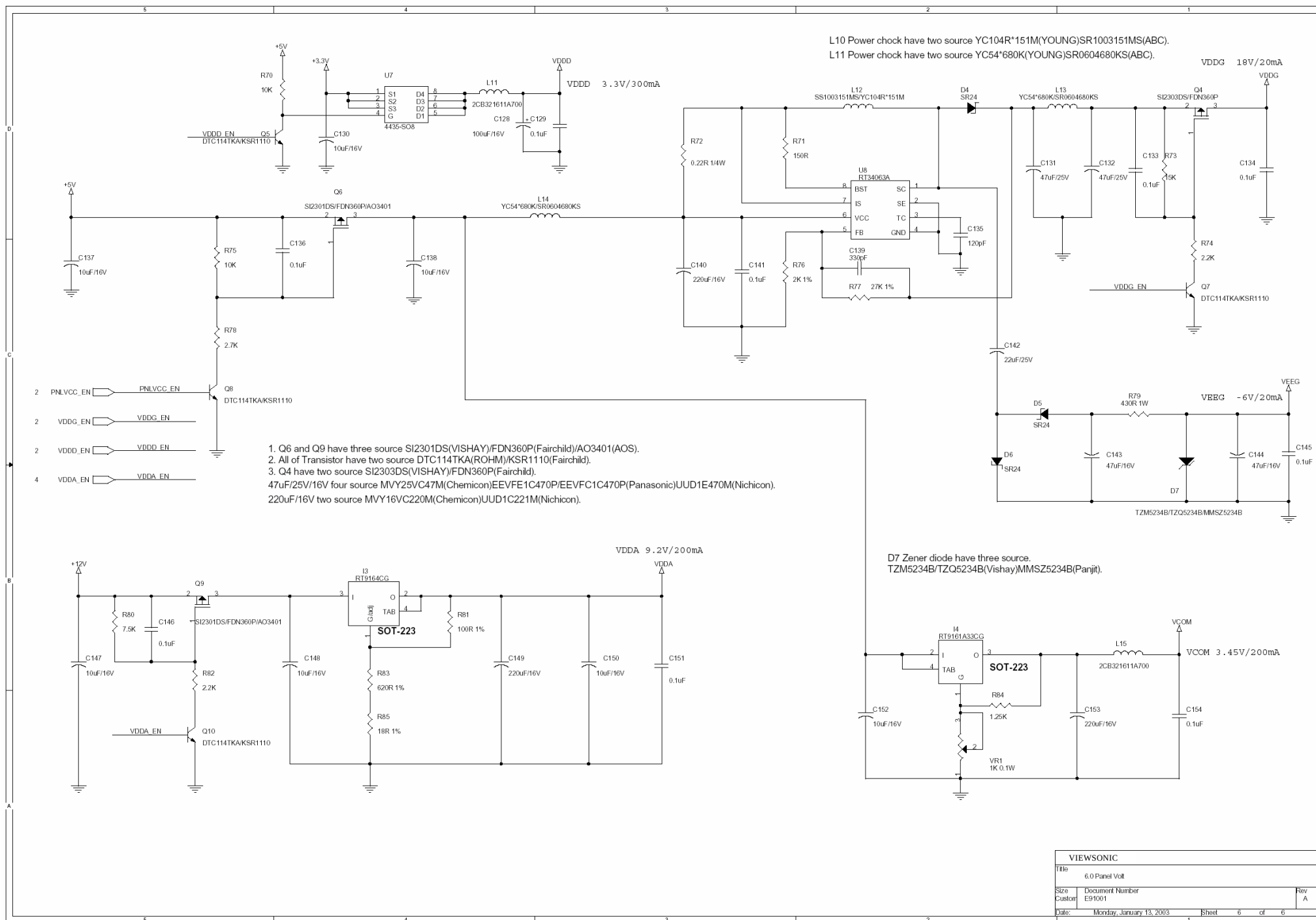


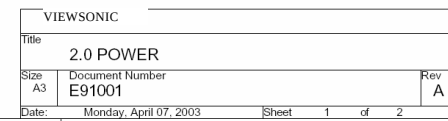
The schematic diagram illustrates the hardware configuration for a 2.0 MCU system. The central component is the 8051PLCC microcontroller, which is interfaced with various peripherals. Power management includes a +5V supply, a 12MHz oscillator (Y1), and a voltage regulator (I1, TO-263) providing +3.3V. Input/Output includes a keyboard (T-S12BZR) with 12 keys, a sensor (T-B12B-ZR) with 12 pins, and an I2C port (CON2) connected to a 6-pin wafer. The microcontroller's pins are connected to various components like resistors (R1-R16), capacitors (C1-C18), and LEDs (LED GRN, LED AMB). The schematic is labeled with component values, pin numbers, and connector types.

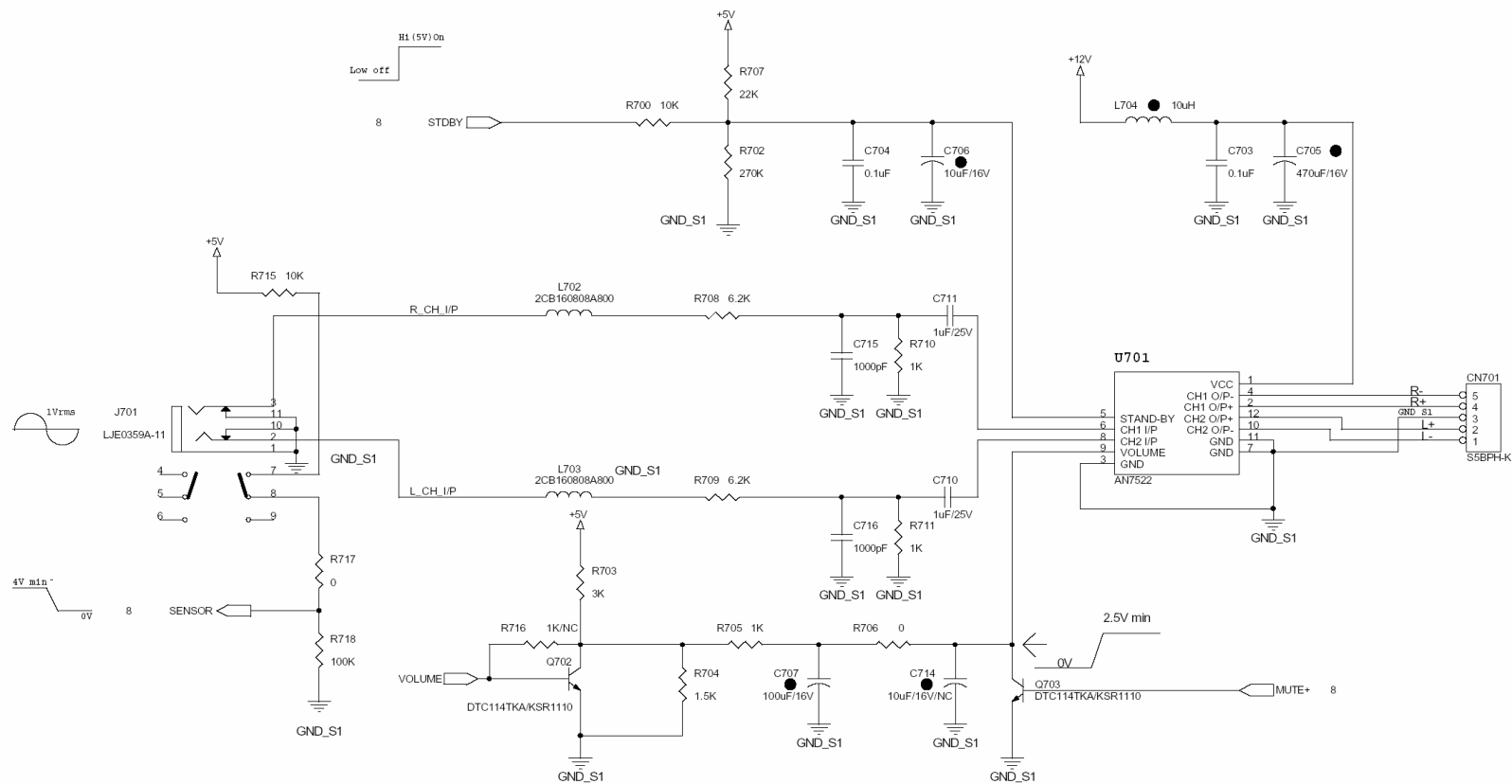
Component List:

- Microcontroller:** 8051PLCC
- Power:** +5V, +3.3V, 12MHz oscillator (Y1), voltage regulator (I1, TO-263)
- Input/Output:** Keyboard (T-S12BZR), Sensor (T-B12B-ZR), I2C Port (CON2)
- Connectors:** CON1, CON2, CON3
- Resistors:** R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11, R12, R13, R14, R15, R16
- Capacitors:** C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15, C16, C17, C18
- LEDs:** LED GRN, LED AMB
- Transistors:** Q1, Q2, Q3
- Diodes:** D1
- Other:** MUTE+, SDA, SCL, WP, STDBY, SENSOR, GRN, AMBER, MUTE, SP+, MENU, DOWN, UP, SEL, POWER, TXD, RXD, INT0, INT1, T0, T1, P1.0, P1.1, P1.2, P1.3, P1.4, P1.5, P1.6, P1.7, INT2, INT3, P4.3, P4.2, P4.1, P4.0

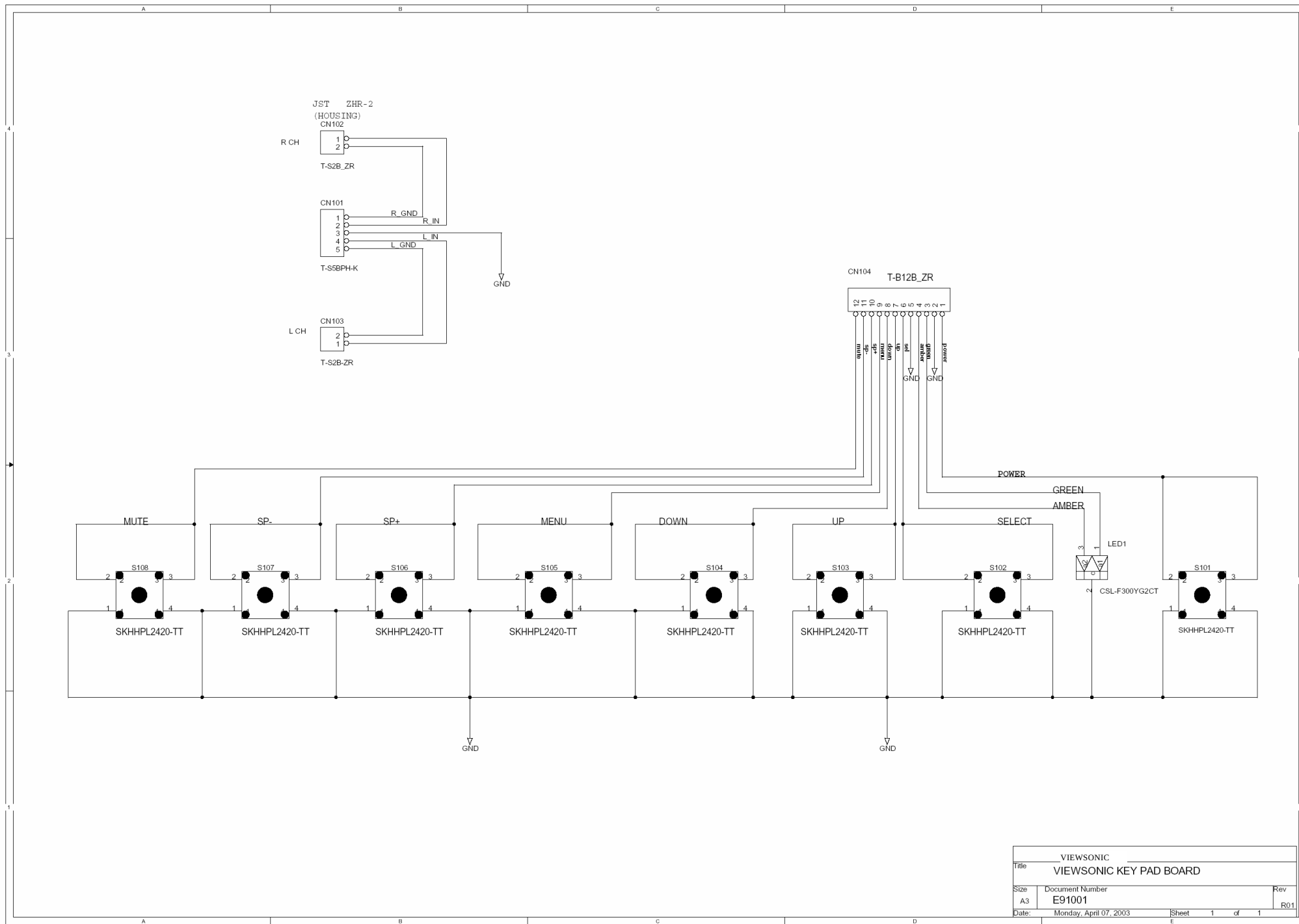




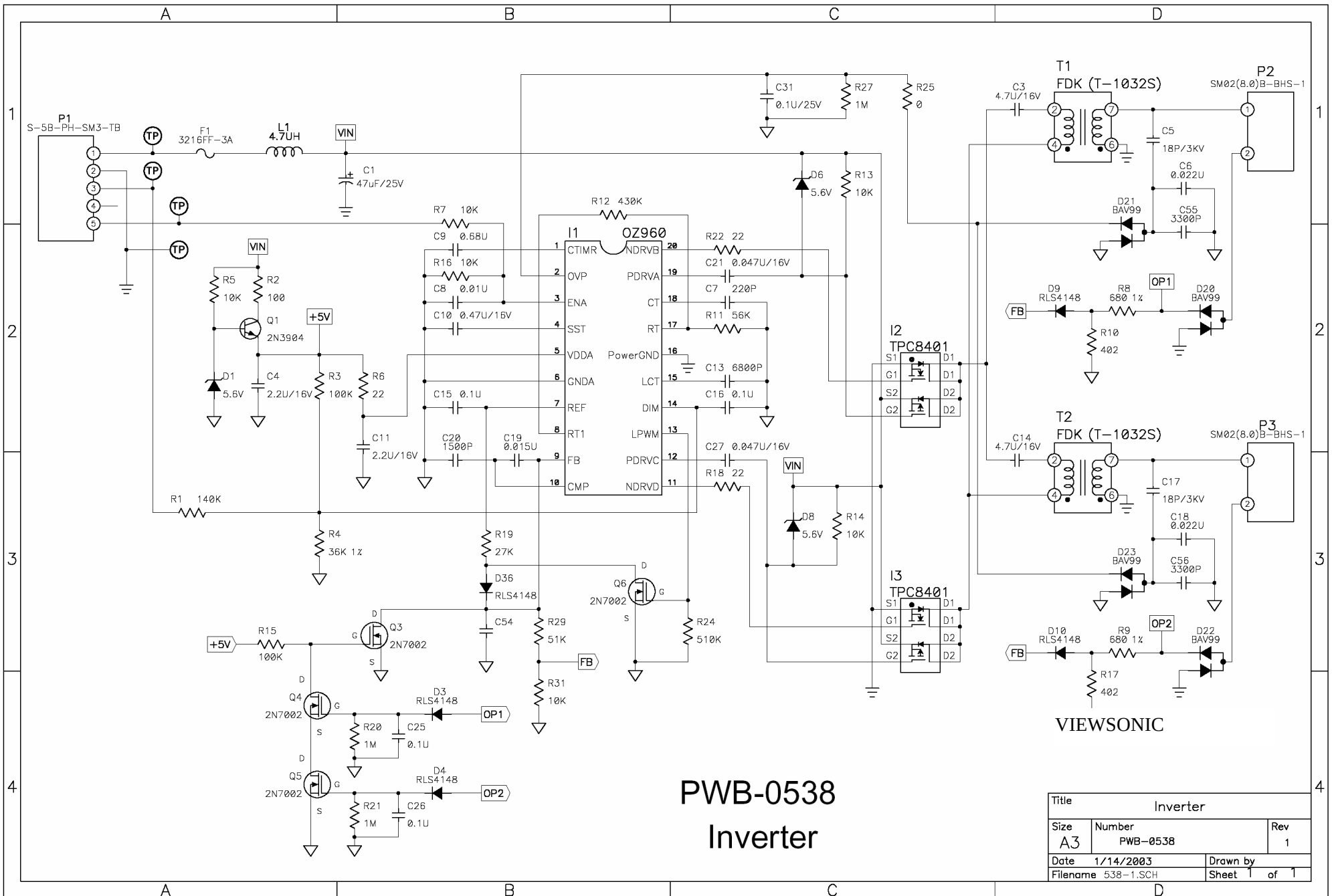




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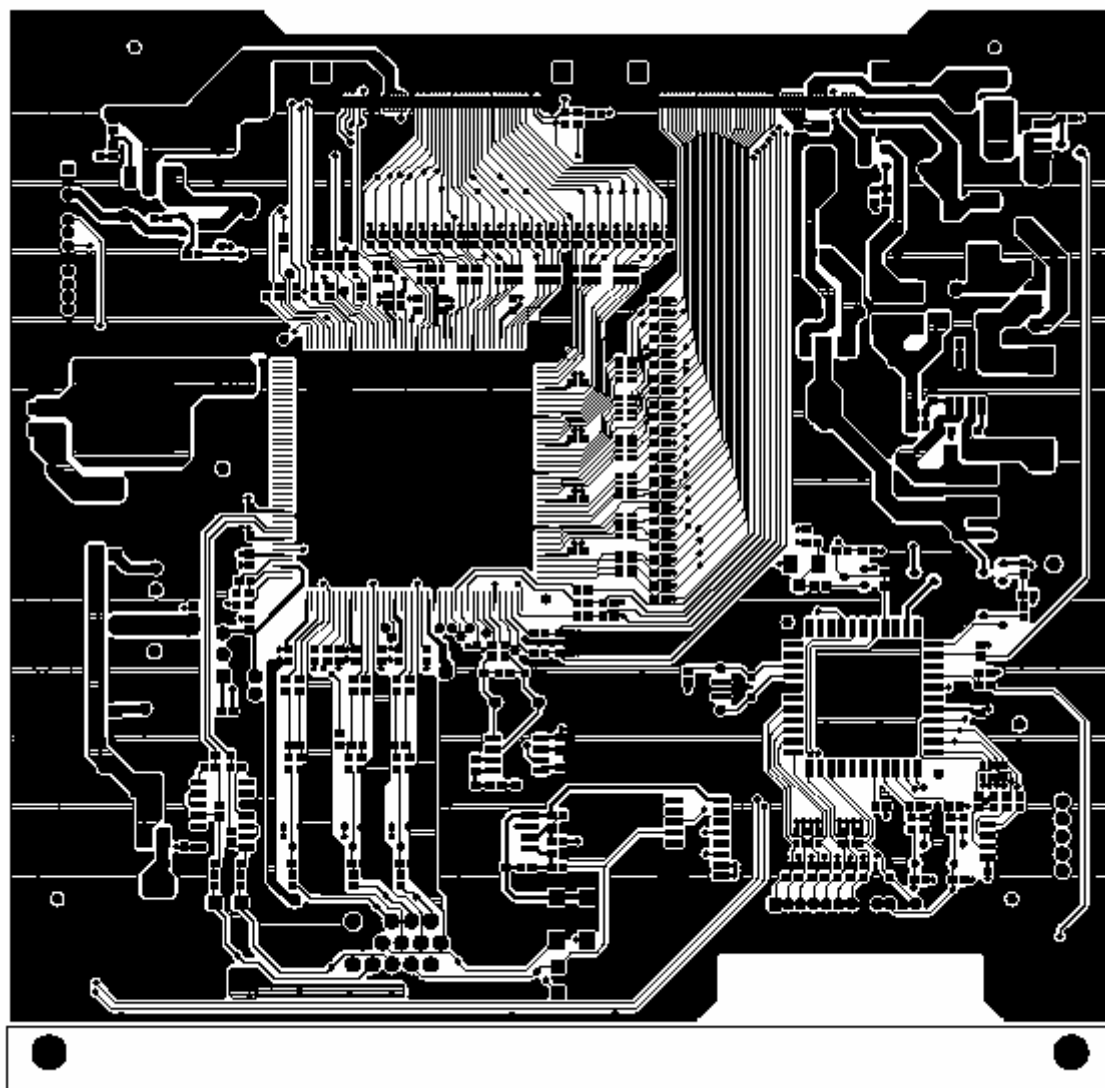


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Date:	Monday, April 07, 2003	Sheet	1 of 1

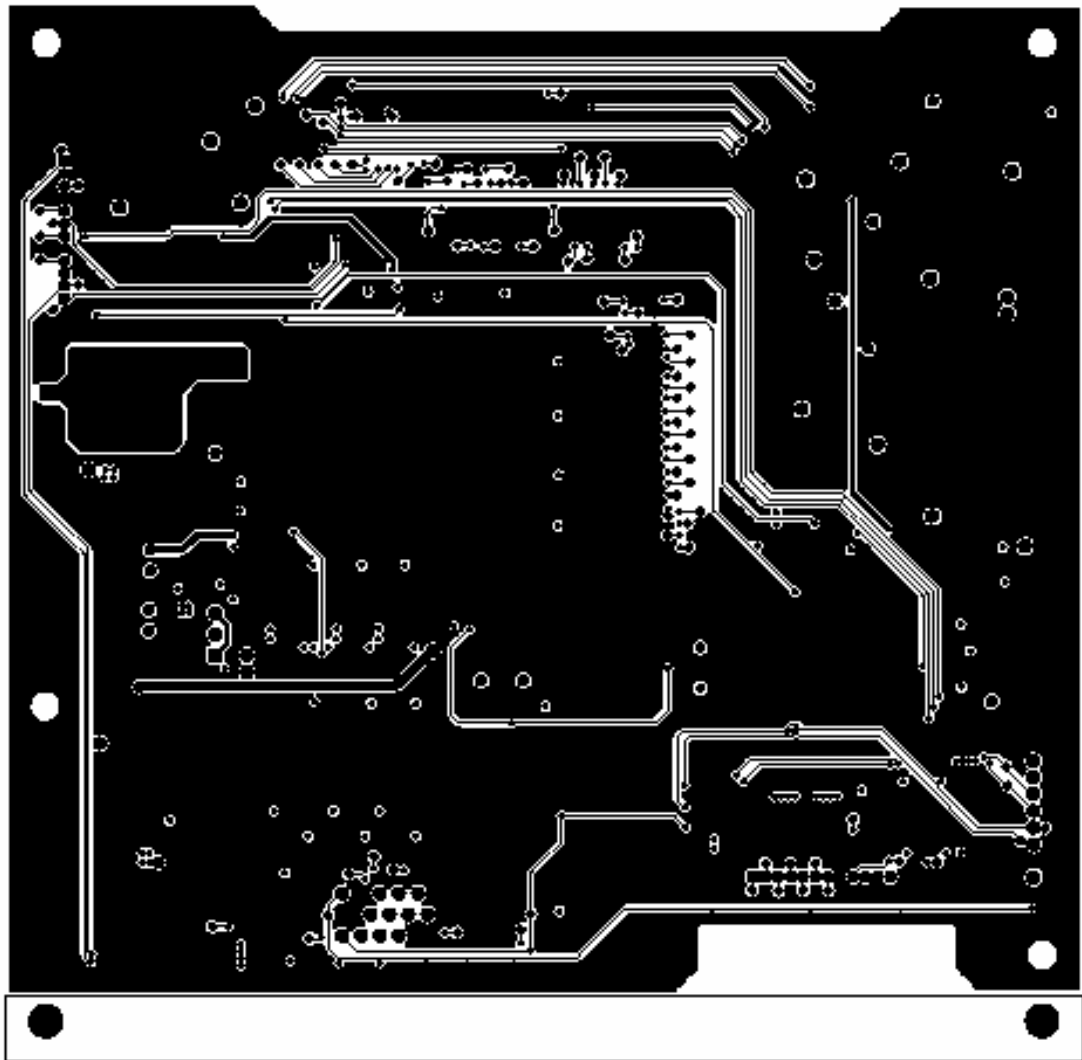


11. PCB Layout Diagrams

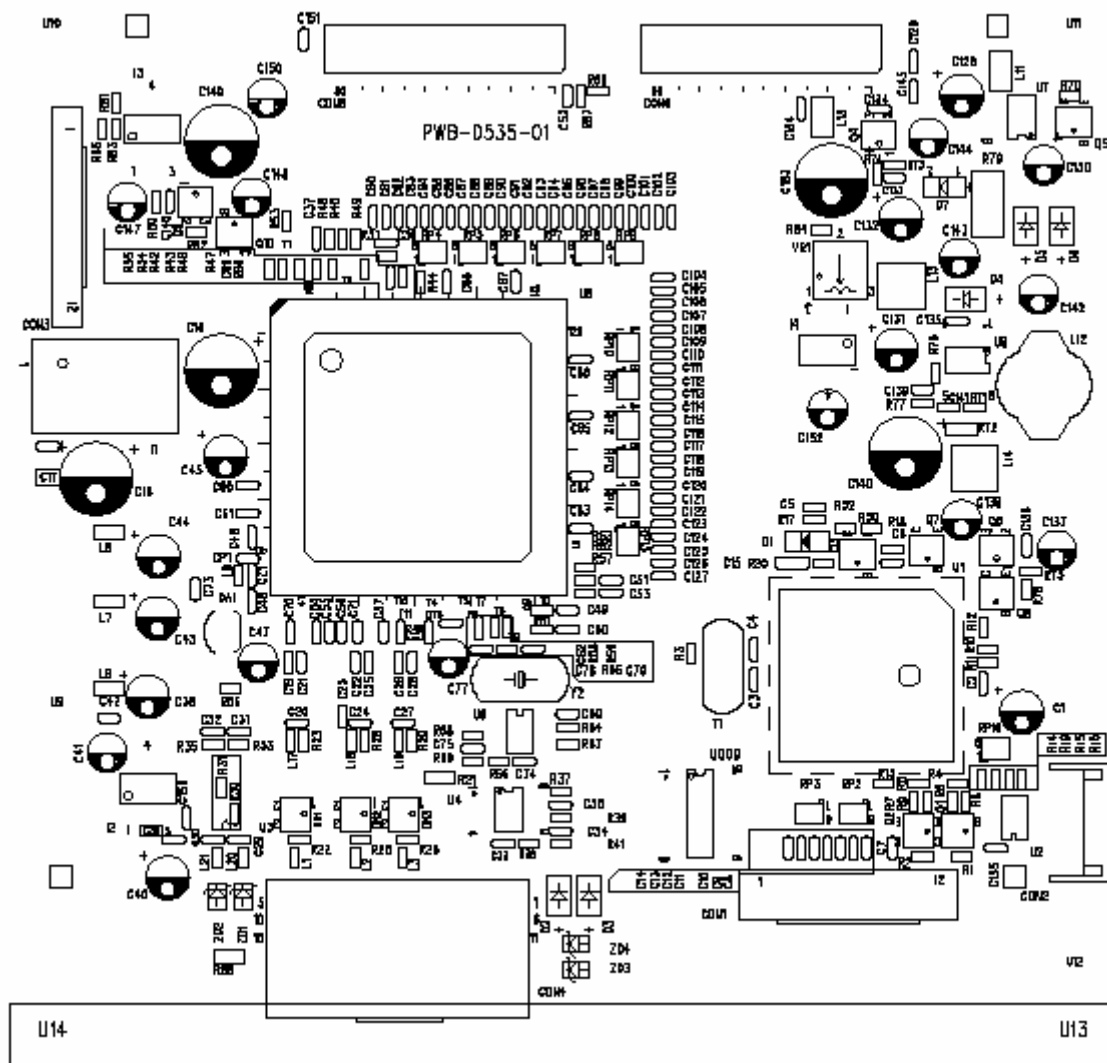
Main Board

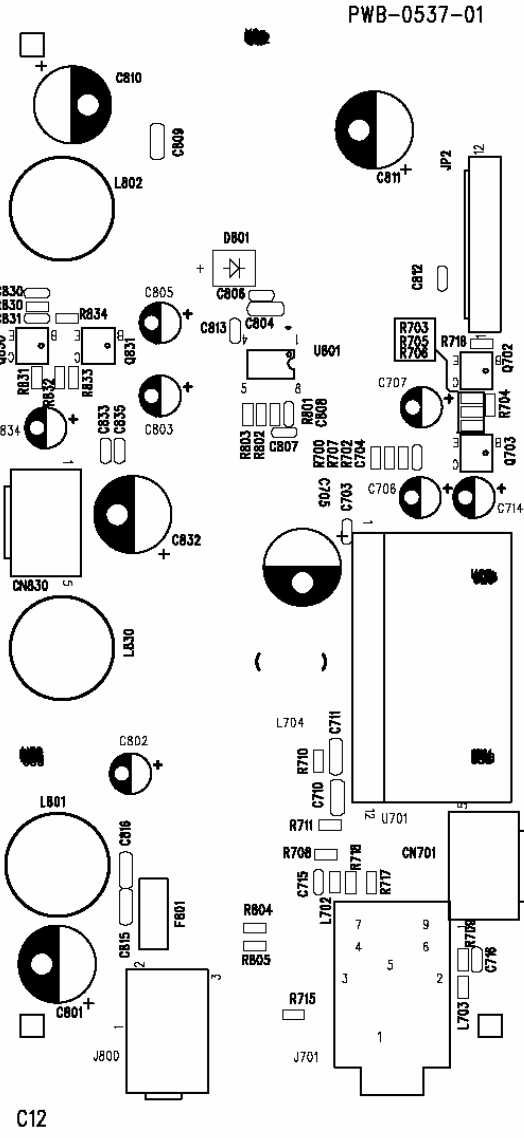
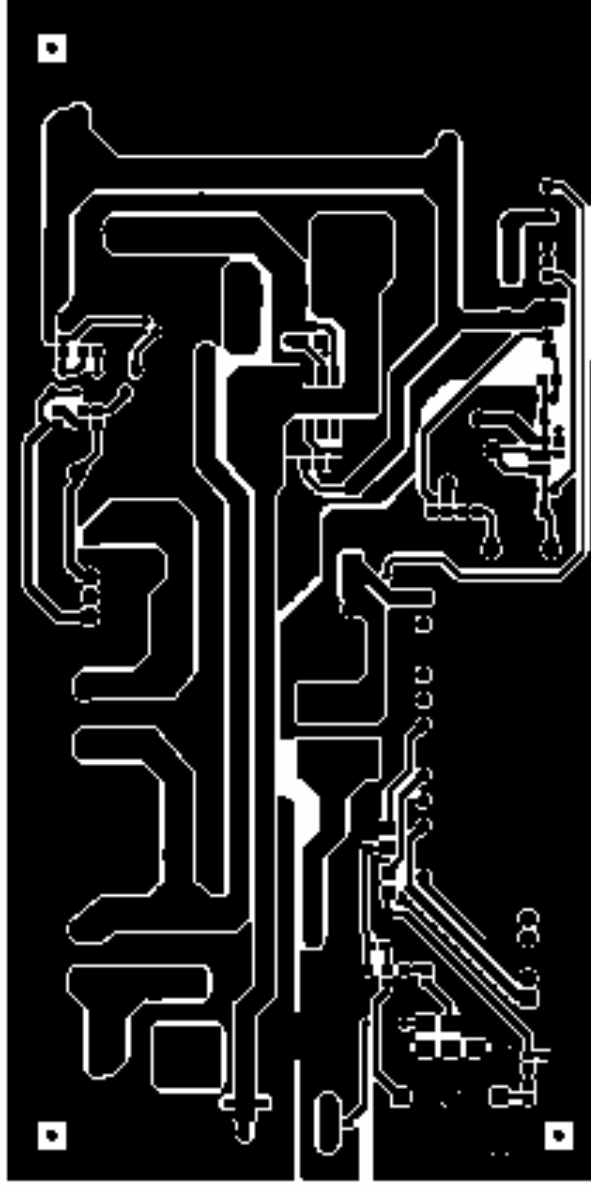
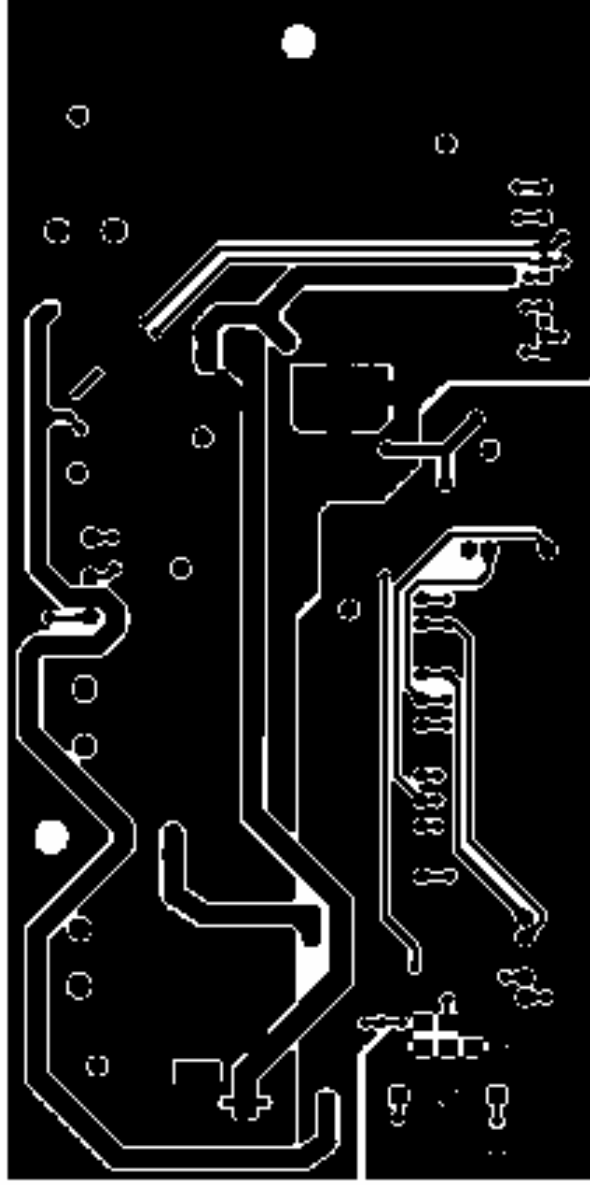


Main Board

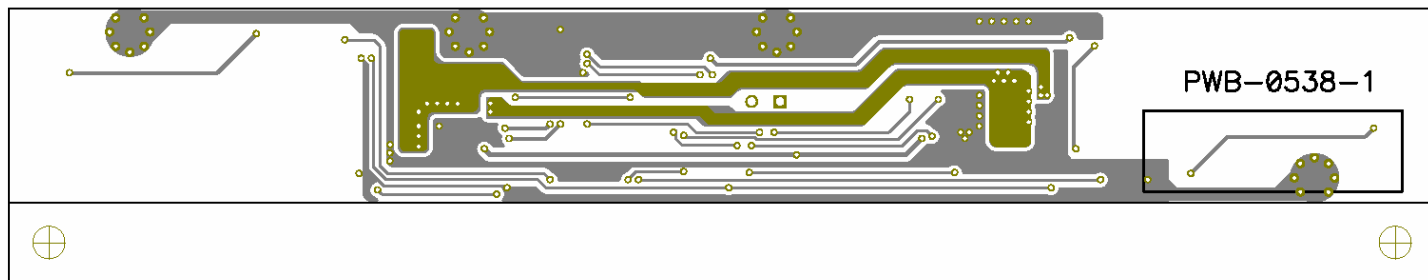
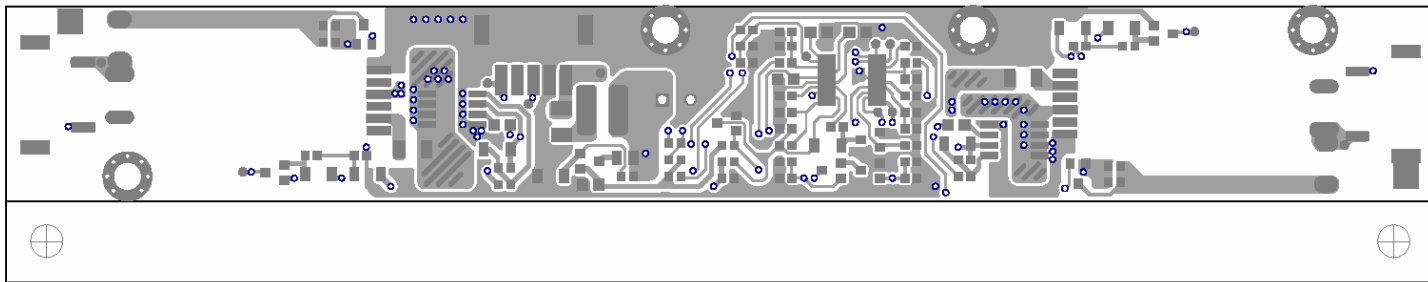
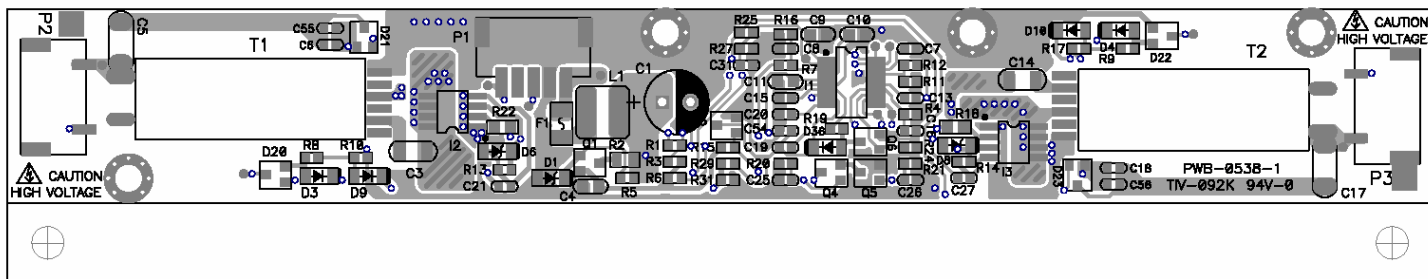
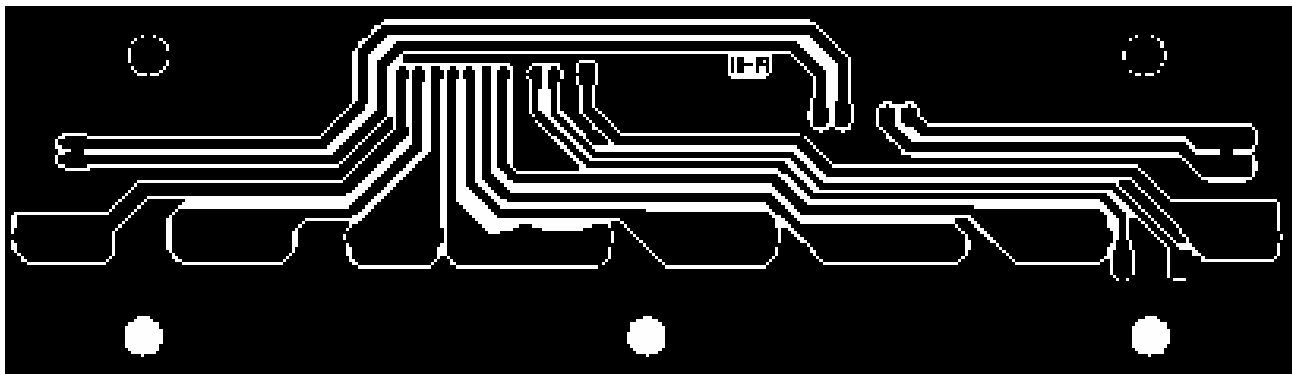
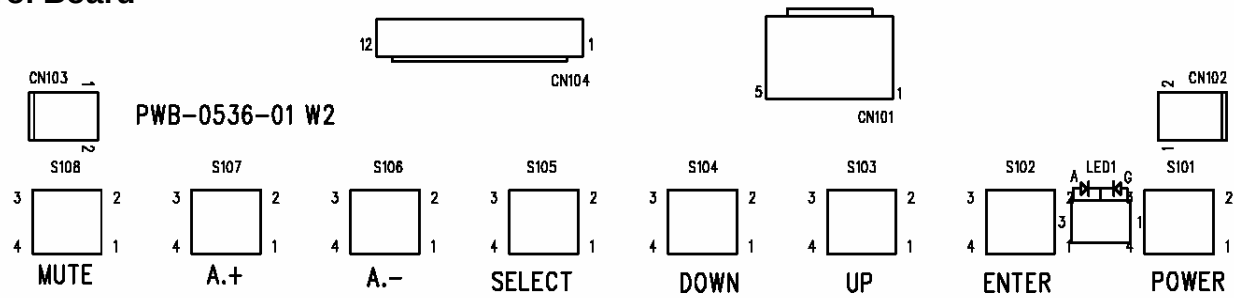


Main Board





Control Board



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3. Front Panel Function Control Description				
4. Circuit Description				
5. Adjusting Procedure				
6. Trouble Shooting Flow Chart				
7. Recommended Spare Parts List				
8. Exploded Diagram and Spare Parts List				
9. Block Diagram				
10. Schematic Diagrams				
11. PCB Layout Diagrams				

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